MISSISSIPPI LAW JOURNAL

SYMPOSIUM

THE EFFECT OF TECHNOLOGY ON FOURTH AMENDMENT ANALYSIS AND INDIVIDUAL RIGHTS

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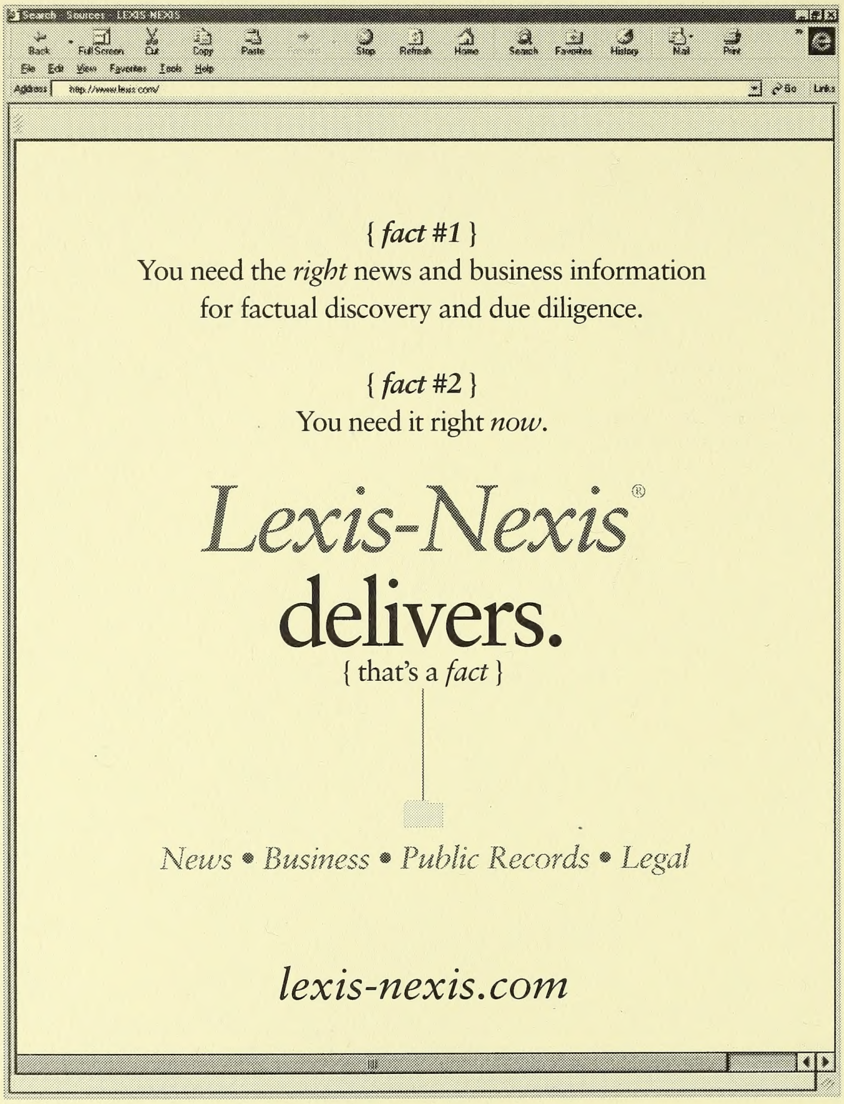
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FOREWORD

Symposium: The Effect of Technology on Fourth Amendment Analysis and Individual Rights

Thomas K. Clancy[*]

The National Center for Justice and the Rule of Law,[1] founded at the University of Mississippi School of Law, focuses on issues relating to the criminal justice system. Its purpose is to promote the two concepts comprising the title of the Center. The concept of "justice" appeals to basic notions of equality, equity, and fairness, often with an emotive component. In contrast, the phrase "rule of law" refers to the requirement that certain procedures and issues must be followed in each case to reach a proper result. Neither concept is sufficient; rather, both must be utilized to ensure that the criminal justice system fulfills its function in society. The Center implements its mission through projects, conferences, educational programs and publications that examine important criminal law and procedural issues.

In furtherance of that mission, the Center has created a "Fourth Amendment Initiative." Perhaps no other Amendment has such broad applicability to everyday life. The Fourth Amendment is a very complicated area of jurisprudence. Prosecutors, defense attorneys, and judges often have limited knowledge of the law and many law enforcement officers are undertrained. The legal landscape is constantly changing as a result of new technology and court decisions. Yet, there is little or no continuing search and seizure training for professionals in the criminal justice system.

The purpose of the Center's initiative is to promote awareness of Fourth Amendment principles. This initiative includes hosting conferences and lectures and supporting selected publications. The Center takes no point of view as to the direction that Fourth Amendment analysis should take, but it seeks to facilitate awareness of the issues and encourage discussion of search and seizure principles.

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[*] Director, National Center for Justice and the Rule of Law, and Professor, University of Mississippi School of Law. J.D., Vermont Law School. B.A., University of Notre Dame.

[1] The National Center for Justice and the Rule of Law at the University of Mississippi School of Law is supported by a grant from the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice.

On April 12, 2002, the Center hosted its initial conference, entitled *The Effect of Technology on Fourth Amendment Analysis and Individual Rights.* The Center believes that that conference–and the insightful articles published in this edition of the *Mississippi Law Journal* that stemmed from the presentations at the conference–significantly further the Center's mission and, more importantly, make significant contributions to resolving the question of how to reconcile the impact of technological change with Fourth Amendment principles. The Center, and I personally, wish to thank the leading legal scholars who participated in the symposium: Professor John Burkoff of the University of Pittsburgh School of Law; Professor A. Morgan Cloud of Emory University School of Law; Professor Tracey Maclin of Boston University School of Law; Professor David Sklansky of the University of California at Los Angeles School of Law; Professor Christopher Slobogin of the University of Florida Fredric G. Levin College of Law; Professor James Tomkovicz of the University of Iowa College of Law; and Professor Kathryn Urbonya of the College of William & Mary Marshall-Wythe School of Law.[2]

The United States Supreme Court has long struggled with reconciling Fourth Amendment protections with the challenges posed by modern technology. At the beginning of the Twentieth Century, the Court in *Olmstead v. United States*[3] was confronted with the question of whether the Amendment afforded protection against the wiretapping of telephone conversations by federal authorities. Throughout the Twentieth Century, new technology produced new challenges and new attempts to reconcile Fourth Amendment principles with individual protections. These cases have included such seminal cases as *Carroll v. United States*[4] (motor vehicles); *Katz v. United States*[5] (listening device); *Smith v. Maryland*[6] (pen registers); *United States v. Karo*[7] (electronic monitoring devices); *United States v. Jacobsen*[8] (chemical testing of substance); *Dow Chemical Co. v. United States*[9] (surveillance from airplanes); and *Skinner v. Railway Labor Executives' Assoc.*[10] (drug testing of employees). None of these attempts has produced a consensus that the Court has found the correct analytical structure or the proper balance of governmental and individual interests.

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[2] Professors Burkoff and Sklansky acted as commentators at the conference, providing insightful comments and questions based on the presentations made by the other participants.

[3] 277 U.S. 438 (1928).

The Court recently issued its opinion in *Kyllo v. United States*,[11] which concerned the use of a thermal imaging device directed at a house. Is this a major decision? What impact does that decision have on the government's ability to use technology to gather information? Even more recently, terrorist acts have utilized sophisticated technology (airplanes and germ warfare), placing new emphasis on the question of the effect of technology on Fourth Amendment analysis and individual rights. What is the Fourth Amendment's role in regulating the government's attempts to use technology to find those responsible and to prevent such attacks in the future?

Still more challenges are posed by current technology and technological devices that are on the horizon, which give the government new powers to intrude. For example, these devices include very intrusive scanning machines, which leave nothing to the imagination when depicting the human body; handheld devices the police can use to measure the presence of alcohol on one's breath and guns and drugs on the person's body; facial recognition systems used in public places; and very sophisticated systems to search e-mail and computer files.

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[4] 267 U.S. 132 (1925).

[5] 389 U.S. 347 (1967).

[6] 442 U.S. 735 (1979).

[7] 468 U.S. 705 (1984).

[8] 466 U.S. 109 (1984).

[9] 476 U.S. 227 (1986).

[10] 489 U.S. 602 (1989).

[11] 533 U.S. 27 (2001).

Parents are now voluntarily having computer chips implanted into their children to permit satellite tracking in the event the child is lost or kidnapped. Such systems are also useful to track Alzheimer patients and others suffering infirmities. Satellite tracking is now employed by some jurisdictions to track probationers, parolees, and those on pretrial release. The benefit of such tracking is substantial and immediate: the police can determine with certainty where the person is. Think of its potential usefulness in tracking aliens who enter the United States. Think also of the potential usefulness of a universally mandated 24-7 tracking system, whereby all persons have embedded computer chips (or some other device that permits tracking to occur) that are monitored, with the results recorded for future use. Law enforcement would be able to readily solve hosts of crimes. If a burglary occurs, the police will be able to determine who was in the house at the time. If a child is kidnapped, the persons responsible could be quickly identified and the child recovered. Automobile theft is a huge problem. Should the government be able to mandate placing tracing devices in all cars to facilitate their recovery? Similar devices could be placed in virtually all newly manufactured goods, similarly reducing the ability of thieves to enjoy the fruits of their crimes and to successfully elude detection.

Technology is both a good and a danger to privacy and security. Do we have to abandon the traditional Fourth Amendment model, which protects individual rights over group rights? Do terrorists win when we destroy liberty to combat them? How much power should the police have? What are the standards by which the courts should regulate the use of advanced technological devices to search and seize? These are just a few of the difficult decisions that must be confronted as a result of technological change. How the Supreme Court–and society in general–address these challenges will have a great deal to say about how much liberty we have and how much the government can know and intrude.

RUBE GOLDBERG MEETS THE CONSTITUTION: THE SUPREME COURT, TECHNOLOGY AND THE FOURTH AMENDMENT

Morgan Cloud[*]

> Rube's drawings depict absurdly-connected machines functioning in extremely complex and roundabout ways to produce a simple end result; because of this Rube Goldberg has become associated with any convoluted system of achieving a basic task . . . While most machines work to make difficult tasks simple, his inventions made simple tasks amazingly complex.[1]

For three-quarters of a century, the Supreme Court has struggled to identify how—or even if—the Fourth Amendment regulates technological surveillance by government investigators. The Court's efforts have not been trivial. Its most important decisions have redefined fundamental concepts governing all searches and seizures, not just those involving the use of technology. Despite the importance of these decisions, the

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[*] Charles Howard Candler Professor of Law, Emory University. This paper was commissioned and underwritten by funds from the National Center for Justice and the Rule of Law at the University of Mississippi School of Law (National Center), which is supported by a grant from the Office of Justice Programs at the U.S. Department of Justice (2000-DD-VX-0032). An earlier version of the article was presented at a Symposium sponsored by the National Center and held at the University of Mississippi School of Law on April 12, 2002.

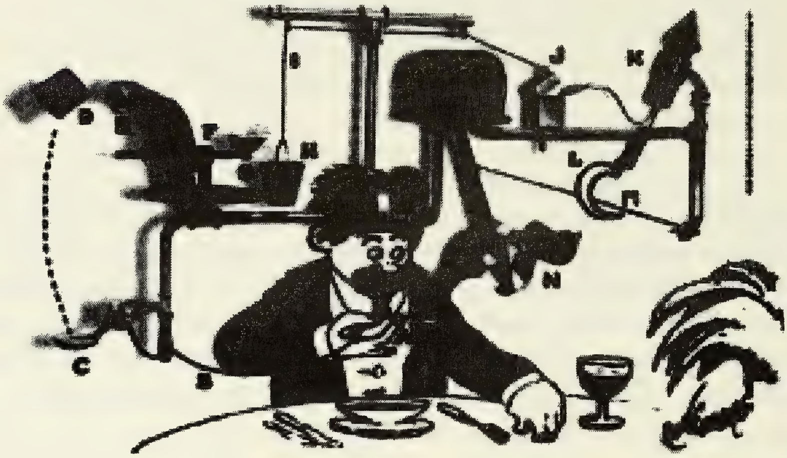
[1] The Official Rube Goldberg Web Site, http://www.rube-goldberg.com (last visited Oct. 16, 2002). The introductory quotation and the following passage are excerpts from the biographical sketch that can be found at this site:

> Rube Goldberg (1883-1970) was a Pulitzer Prize winning cartoonist, sculptor, and author. . . . Through his 'INVENTIONS', Rube Goldberg showed difficult ways to achieve easy results. His cartoons were, (as he said), symbols of man's capacity for exerting maximum effort to accomplish minimal results. Rube believed that there were two ways to do things: the simple way and the hard way, and that a surprising number of people preferred doing things the hard way.

Id.

Court repeatedly has constructed theories that, at least in practice, function like some Rube Goldberg device for constitutional interpretation. Readers unfamiliar with Rube Goldberg's technological designs might consider the following example:[2]

Rube Goldberg's Self-Operating Napkin



Rube Goldberg TM & © of Rube Goldberg, Inc.

Raising spoon to mouth (A) pulls string (B), thereby jerking ladle (C), which throws cracker (D) past parrot (E). Parrot jumps after cracker, and perch (F) tilts, upsetting seeds (G) into pail (H). Extra weight in pail pulls cord (I), which opens and lights automatic cigar lighter (J), setting off skyrocket (K), which causes sickle (L) to cut string (M) and allows pendulum with attached napkin (N) to swing back and forth, thereby wiping off your chin.

The Rube Goldberg quality of the theories constructed by the Supreme Court to deal with modern technology's impact on Fourth Amendment doctrine is nowhere more obvious than in the Court's initial decision involving technological surveillance, *Olmstead v. United States.*[3] The opinion cobbled together a misguided textual literalism, a parsimonious view of communicative privacy, and a theory of property rights that rejected nearly a half century of precedents to construct a Rube Goldbergesque constitutional theory that effectively insulated emerging electronic surveillance technologies from constitutional scrutiny.

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[2] Rube Goldberg, *Rube Goldberg's Self-Operating Napkin at* http://www.2cs.cmo.edu/~tem/cs_seminars/Rube_Napkin.html (last visited Oct. 8, 2002). A search of the World Wide Web using any standard search engine will lead the reader to this and numerous other sites with additional examples of Goldberg's miraculously convoluted designs.

The Court abandoned this literalist property theory in the 1960s, and in the process it revolutionized the very definition of searches regulated by the Fourth Amendment—and the very nature of the rights it protects. The most important decision, *Katz v. United States*,[4] was crafted to allow the judiciary to impose new constitutional limits on technological surveillance, but the analytical device adopted by the Court—the *reasonable expectation of privacy* standard—has failed to achieve that goal. In practice it has frequently provided little more protection of privacy than did the property-based, literalist theories it overturned. Applying the *Katz* "reasonable expectation of privacy" test, the Court repeatedly has concluded that surveillance techniques that would seem to be searches by any logical definition of the term are not searches regulated by the Fourth Amendment. Viewed collectively, these decisions often seem inspired by the kind of logic that produced Rube Goldberg's bizarre contraptions.

For example, placing an electronic beeper in a canister to allow government agents to track the canister's (and therefore the suspects') travels by motor vehicle is not a search.[5] But if the same canister is moved into a home, the same monitoring of the same beeper signal is converted into a search that must satisfy Fourth Amendment standards.[6] Flying a helicopter or an airplane at low altitudes so police officers can see into parts of a home or its curtilage that would otherwise be hidden from public view is not a search.[7] But using a commercially available machine that only measures the heat emitted from the same house is a Fourth Amendment search.[8]

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[3] 277 U.S. 438 (1928), discussed *infra* Part I.

[4] 389 U.S. 347 (1967), discussed *infra* Part II.

[5] United States v. Knotts, 460 U.S. 276 (1983).

[6] United States v. Karo, 468 U.S. 705 (1984).

[7] California v. Ciraolo, 476 U.S. 207 (1986); Florida v. Riley, 488 U.S. 445

If a Rube Goldberg contraption is a "convoluted system of achieving a basic task,"[9] or a machine that makes "simple tasks amazingly complex,"[10] then the Court's definition of the technologies regulated by the Fourth Amendment surely is such a device. In *Dow Chemical Co. v. United States*,[11] the Court decreed that the Fourth Amendment does not regulate government use of technologies "generally available to the public,"[12] but provided little useful guidance about how to determine which technologies fit that definition. It concluded that using expensive and specialized cameras to take very detailed photographs of private property is not a search if the camera is mounted on a private airplane flying thousands of feet above the planet, but may be a search if the camera is mounted on a privately owned commercial satellite.[13] In its most recent attempt to determine whether the Fourth Amendment regulated use of a technological surveillance device, the Court appeared to announce a simple, direct and comprehensible definition to resolve this issue.[14] Then like some mad designer committed to assembling a complex, blundering, and inefficient contraption, the Court destroyed this clarity by limiting this new test with a modified version of the incoherent *Dow* test.[15]

These three innovations in Fourth Amendment theory resulting from the emergence of modern technological surveillance—the property-based theory that emerged in the 1920s, the expectation of privacy standard that replaced it forty years

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(1989); *see also* Kyllo v. United States, 533 U.S. 27, 33 (2001).

[8] *Kyllo*, 533 U.S. at 27.

[9] *See supra* text accompanying note 1.

[10] *See supra* text accompanying note 1.

[11] 476 U.S. 227 (1986).

[12] *Dow Chem. Co.*, 476 U.S. at 238.

[13] *Id.*

[14] *Kyllo*, 533 U.S. at 34 ("We think that obtaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without physical 'intrusion into a constitutionally protected area,' constitutes a search. . . . ") (quoting Silverman v. United States, 365 U.S. 505, 512 (1961)).

[15] *Id.*, discussed *infra* Part III.

later, and the attempt to define the technologies that trigger constitutional scrutiny—are the subject of this article. I conclude that each has been a failure. Each has baffled scholars, befuddled judges, and burdened law enforcers. All have diminished individual autonomy and correspondingly expanded government power. The analysis of these three critical innovations proceeds chronologically. We begin at the beginning.

I. PROPERTY AND LIBERTY: FROM *BOYD* TO *OLMSTEAD*

A. Boyd

The Supreme Court took its first crack at defining the relationship between technological surveillance and the Fourth Amendment in its 1928 decision in *Olmstead v. United States*.[16] The core of the majority opinion rested upon property-based analysis, and this is not surprising. For more than forty years the Supreme Court had linked Fourth Amendment rights to property rights.[17]

The Court crafted its first important theories of the nature and scope of rights protected by the Fourth Amendment[18] in its 1886 opinion in *Boyd v. United States.*[19] The *Boyd* decision held that a court order compelling production of business records in a civil forfeiture action violated both the Fourth Amendment and the Fifth Amendment privilege against self-incrimination.[20] The government wanted the records to prove its claim that the Boyds had imported plate glass without paying the required import duties.[21] The court order did not authorize a physical search for the papers by government agents, nor did it require the Boyds to give up permanent custody.[22] The order merely directed the Boyds to bring the papers to court for inspection by the government.[23]

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[16] 277 U.S. 438 (1928).

[17] *See, e.g.*, Adams v. New York, 192 U.S. 585, 598 (1904) (stating that the Fourth Amendment is "designed to prevent violations of private security in person and property and unlawful invasion of the sanctity of the home.").

[18] The Court had interpreted the Fourth Amendment in earlier cases, but had not previously attempted to establish a comprehensive theory of the Amendment. *See, e.g.*, *Ex Parte* Jackson, 96 U.S. 727 (1877) (search warrant was required to authorize a government search of sealed letters and packages). Most of the early Supreme Court opinions mentioning the Fourth Amendment deal with it only tangentially. *See, e.g.*, *Ex Parte* Milligan, 71 U.S. 2 (1866) (Fourth Amendment is not a limitation on the war-making power); Smith v. Maryland, 59 U.S. 71 (1855) (state statute permitting issuance of a search warrant without requiring an oath does not violate the Constitution because the Fourth Amendment only restricted the national government); Luther v. Borden, 48 U.S. 1, 48 (1849) (Woodbury, J., dissenting) (arguing that the Fourth Amendment was relevant to a trespass action challenging a warrantless search and seizure performed pursuant to a state's declaration of martial law); *Ex parte* Bollman and *Ex parte* Swartwout, 8 U.S. 75 (1807) (Court failed to mention the Fourth Amendment in a decision where defendants were discharged because of a lack of evidence supporting treason charges even though the Fourth Amendment had been cited and argued by defense counsel in support of the claim that no probable cause existed). *Boyd's* persistent significance is apparent both from subsequent praise, *see Olmstead*, 277 U.S. at 474 (Brandeis, J., dissenting) ("*Boyd v. United States* [is] a case that will be remem-

It is hard to imagine a milder exercise of government power in a Fourth Amendment dispute. Nonetheless, the Court held that the court order violated the Fourth Amendment:

> It is not the breaking of his doors, and the rummaging of his drawers, that constitutes the essence of the offence; but it is the invasion of his *indefeasible right of personal security, personal liberty and private property.* . . . Breaking into a house and opening boxes and drawers are circumstances of aggravation; but any forcible and compulsory extortion of a man's own testimony or of his private papers to convict him of a crime or to forfeit his goods, is within the condemnation of that judgment. *In this regard, the Fourth and Fifth Amend-*

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bered as long as civil liberty lives in the United States."), and from critics' felt need to declare its demise a century after the decision. *See* United States v. Doe, 465 U.S. 605, 618 (1983) (O'Connor, J., concurring).

[19] 116 U.S. 616 (1886).

[20] *Boyd,* 116 U.S. at 634-35.

[21] *Id.* at 617-18. The government charged that E.A. Boyd & Sons (hereinafter the Boyds) owed customs duties on thirty-five cases of plate glass. *Id.* The Boyds had supplied plate glass for a new federal building in Philadelphia. Because it came from their existing inventory, they had paid federal import duties on the glass actually used in the project. The government had agreed that the Boyds could import replacement glass without paying duties. The government charged that the Boyds had claimed a tax exemption for far more replacement glass than was permitted by their agreement. *See* Brief for Plaintiffs at app. 1-6, *Boyd,* 116 U.S. 616; Brief for the United States, *id.*, at 1-4. *See also* Gerald F. Uelmen, *2001: A Bus Trip: A Guided Tour of the Fourth Amendment Jurisprudence*, CHAMPION, July 1992, at 6.

[22] *Id.* at 619-20.

[23] *Id.*

> *ments run almost into each other.*[24]

Two attributes of the *Boyd* opinion are relevant for understanding how *Olmstead* muddled Fourth Amendment doctrine when the Supreme Court faced the twentieth century problem of wiretapping. The first attribute is implicit in the preceding quotation, and is made explicit elsewhere in the opinion and its progeny. *Boyd* linked Fourth Amendment rights to common law property rules. Under *Boyd,* the government was entitled to search for and seize only those things in which it had a legally identifiable interest or claim rooted in property law.[25] The government could assert such a claim over contraband (which the private citizen has no right to possess), imported goods on which duties had not been paid (the government has a superior legal claim to the property), and stolen property (with the government acting as surrogate for the lawful owner).[26] But the government could assert no property interest in the Boyds' private business records, which it wanted to use as evidence to support claims concerning other property, the plate glass,[27] and private papers were the species of personal property accorded the greatest protection from searches and seizures under English common law and both Constitutional Amendments.[28]

These property-based concepts became a fundamental part of Fourth Amendment doctrine and survived until abandoned by the Supreme Court eighty years later.[29] In the first half of that period—the four decades between *Boyd* and *Olmstead*—the Supreme Court reaffirmed the link between property interests and liberty and privacy rights in some of its most important opinions construing the Amendment,[30] including the decisions explicitly announcing the exclusionary and mere evidence rules.[31] The government's authority to search and seize property was limited to approved categories of property, and the exercise of government power was invalid if it intruded into a protected sphere of private property rights, particularly private papers.[32] *Olmstead* applied this property-

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[24] *Boyd,* 116 U.S. at 630 (emphasis added).

[25] *See, e.g.*, Gouled v. United States, 255 U.S. 298 (1921); Weeks v. United States, 232 U.S. 383 (1914).

[26] *See, e.g., Boyd,* 116 U.S. at 627 (quoting *Entick v. Carrington* and *Three Other King's Messengers*, 19 Howell's S.Tr. 1029 (1765)) ("The great end for which men entered into society was to secure their property.").

[27] *Boyd,* 116 U.S. at 623 ("The two things differ *toto coelo*. In the one case the government is entitled to the property; in the other it is not."); *id.* at 624. The list of property which the government was entitled to search for and seize later was expanded to include the instrumentalities by which crimes were committed. *Gouled*, 255 U.S. at 298.

[28] See *infra* notes 34-41 and accompanying text.

[29] The Supreme Court began to inter *Boyd* with its decisions in *Schmerber v. California*, 384 U.S. 757 (1966), *Warden, Md. Penitentiary v. Hayden*, 387 U.S. 294 (1967), and *Katz v. United States*, 389 U.S. 347 U.S. (1967). Justice O'Connor

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declared the process was finally complete 98 years after *Boyd* was decided. *See* United States v. Doe, 465 U.S. 605, 618 (1984) (O'Connor, J., concurring).

[30] Of course, common law property rules also could insulate law enforcement tactics from constitutional scrutiny. If no intrusion upon property rights occurred, the government conduct would not implicate Fourth Amendment rights. Justice Holmes' cryptic (even for Holmes) opinion in *Hester v. United States,* 265 U.S. 57 (1924) is a good example. Federal revenue agents observed activities involving illegal liquor trafficking agents from a vantage point they obtained by trespassing on private property. They pursued the participants in the transaction, arrested them, and recovered contraband alcohol. A unanimous Court concluded that there was no search or seizure within the meaning of the Fourth Amendment for several reasons. The final reason was the one for which the case is best known: the events had occurred in open fields, not in a home or other place protected by the Amendment. *Hester*, 265 U.S. at 59. Holmes cited only a single legal authority, Blackstone, in reaching the conclusion that the distinction between a house and open fields "is as old as the common law." *Id.* The distinction became known as the "open fields" doctrine, which survives in contemporary law, and decrees that the Fourth Amendment protects houses but not open fields from warrantless searches and seizures. *See* United States v. Dunn 480 U.S. 294 (1987); Oliver v. United States 466 U.S. 170 (1984).

The other justifications for the decision in *Hester* anticipated doctrines adopted by the court nearly half a century later. Holmes concluded that no illegal search or seizure occurred because the criminals' own acts disclosed the evidence, reasoning analogous to the contemporary saw that the Amendment does not protect what one knowingly exposes to the public. *See Katz*, 389 U.S. at 351. The Court's fact analysis suggests other contemporary doctrines, including the plain view and hot pursuit exceptions to the warrant rule. *See* Arizona v. Hicks, 480 U.S. 321 (1987); Coolidge v. New Hampshire, 403 U.S. 443 (1971); Warden, Md. Penitentiary v. Hayden, 387 U.S. 294 (1967). The opinion thus has a very "modern" resonance. Yet at the same time the opinion rested largely upon the ancient distinction between the home, its curtilage and open fields lying beyond the curtilage. *See Hester*, 265 U.S. at 59. For all of its modernity, the opinion relied upon property law concepts to define Fourth Amendment rights.

[31] *See, e.g.*, *Weeks*, 232 U.S. at 383; *Gouled*, 255 U.S. at 298.

[32] The opinion in *Entick v. Carrington* and *Three Other King's Messengers*, 19

based theory to wiretapping, but with surprising results.[33]

The second attribute of the *Boyd* opinion that is relevant to this article was its expansive conception of individual rights grounded in a value-driven theory of constitutional interpretation. The *Boyd* Court interpreted both the Fourth and Fifth Amendments more expansively than required by the literal language of either. The Fourth Amendment only governs searches and seizures,[34] and the Court recognized that the statute at issue "does not authorize the search and seizure of books and papers, but only requires the defendant or claimant to produce them."[35] The Fifth Amendment commands that no person "shall be compelled in any criminal case to be a witness against himself."[36] *Boyd* involved a civil forfeiture action and the Boyds were not compelled to testify. The Court could have interpreted the Amendment narrowly, applying it only to criminal cases, and perhaps only to live, in-court testimony. A court applying narrow canons of statutory construction could have concluded that neither Amendment was violated.

Instead, the Supreme Court held that the subpoena for business records (and the authorizing statute) violated both.[37] The Supreme Court construed each Amendment separately,[38]

Howell's State Trials 1029 (1765), the most famous of the eighteenth century English cases involving searches for papers pursuant to general warrants, had an even more direct influence on the *Boyd* opinion. *See infra* note 104 and accompanying text.

[33] *See* Olmstead v. United States, 277 U.S. 438 (1928).

[34] "The right of the people to be secure . . . against unreasonable searches and seizures, shall not be violated. . . . U.S. CONST. amend. IV.

[35] Boyd v. United States, 116 U.S. 616, 621 (1886).

[36] U.S. CONST. amend. V.

[37] *Boyd*, 116 U.S. at 634-35, 638. The Justices unanimously agreed that the government action violated the Boyds' Fifth Amendment rights. Two Justices concluded, however, that there had been no search and seizure, and therefore no violation of the Fourth Amendment. *Id.* at 639-41 (Miller, J., concurring).

[38] The majority concluded that the Fourth Amendment applied because the *purpose and effect* of the disputed subpoena were equivalent to those produced by a literal search and seizure. *Id.* at 622. The purpose of a search is to discover evidence to be used by the government against suspected wrongdoers. The subpoena for documents, of course, has the same purpose. The effect is that government power has been used to obtain incriminating evidence—likely obtained against the will of the affected people. Had the Boyds failed to produce the documents named in the subpoena, the government's allegations would have been

but it also constructed an expansive, structural theory in which the Fourth and Fifth Amendments ran together to create a zone of privacy into which the government could not intrude.[39] Critics of this approach might well consider this the Court's first Fourth Amendment Rube Goldberg contraption.[40] On the other hand, by embracing an interpretive theory that emphasized the values promoted by the Amendments and de-emphasized both the literal terms of the constitutional text and the importance of government efforts at law enforcement, the *Boyd* Court implemented a vision of liberty and privacy so powerful that the opinion continues to be cited more than a century after it was issued.[41]

I have previously described how this interpretive approach affected judicial decision making in disputes involving competing assertions of government power and individual rights:

> [T]he *Boyd* Court eschewed arguments based upon social policy goals. For example, it rejected the government's "argument of utility, that such a search is a means of detecting offenders by discovering evidence." Important societal interests—effective law enforcement and the collection of import duties, then a significant source of revenues for the national government—could not trump fundamental natural rights embodied in the common law and the Constitution. These rights, and the rules devised to enforce them, prevailed over conflicting social policies.[42]

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treated as proven. This threat effectively compelled them to produce evidence against themselves. *Id.* at 630. This emphasis upon the government's purpose in obtaining the subpoena and its effect on the interests protected by the Amendment led the Court to the conclusion that a subpoena and a physical search differed only in degree, not kind. *Id.* at 638. This was a dispositive analogy to a Court believing that the Fourth Amendment prohibited all government intrusions into "the sanctity of a man's home and the privacies of life." *Id.* at 630.

[39] *Id.* at 621.

[40] Consider, for example, the withering criticism leveled at Justice Douglas' attempt to construct a comparable structural device enforcing rights found in the "penumbras" of various amendments, including the Fourth and the Fifth. *See* Griswold v. Connecticut, 381 U.S. 479 (1965).

[41] *See* McKune v. Lile, 122 S.Ct. 2017 (2002); Kyllo v. United States, 533 U.S. 27 (2001); United States v. Hubbell, 530 U.S. 27 (2000); Wilson v. Layne, 526 U.S. 603 (1999); Wyoming v. Houghton, 526 U.S. 295 (1999).

[42] Morgan Cloud, *The Fourth Amendment During the* Lochner *Era: Privacy,*

Property law served as a mechanism for protecting privacy and liberty as long as the Supreme Court deployed this rights-driven interpretive theory. But when the Court abandoned this expansive theory of constitutional interpretation, Fourth Amendment property concepts proved to be a device for constricting privacy rights and expanding government power to deploy new technologies to monitor behavior in homes and other private places.

B. Olmstead

The Supreme Court's decision in *Olmstead v. United States,*[43] sounded the death knell for the Fourth Amendment theories that integrated property law with an expansive interpretation of constitutional provisions designed to protect individual liberty. Olmstead was the head of a large and successful criminal enterprise that violated prohibition laws by importing liquor from Canada and distributing it to customers in Washington State.[44] Much of the government's proof at trial was the product of wiretaps of the defendants' telephone conversations. Olmstead and his co-defendants were convicted of conspiring to violate the federal prohibition laws, and appealed. In the Supreme Court, a bare majority held that the use of wiretaps to intercept private conversations violated neither the Fourth Amendment nor the Fifth.[45]

The majority quickly disposed of the Fifth Amendment self-incrimination issue. It held that because the defendants were not compelled by the government to talk on the telephone, their conversations were voluntary[46] and therefore any violation of the privilege

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Property, and Liberty in Constitutional Theory, 48 STAN. L. REV. 555, 577 (1996).

[43] 277 U.S. 438 (1928).

[44] *Olmstead*, 277 U.S. at 456. The Supreme Court concluded that the organization generated annual revenues exceeding two million dollars, a substantial figure in the 1920s. *Id.* at 456.

[45] *Id.* at 455-56.

[46] *Id.* at 462. The requirement of government coercion as an essential element of a Fifth Amendment violation is well-established in the Court's Fifth Amendment decisions. *See, e.g.*, Colorado v. Connelly, 479 U.S. 157 (1986); Miranda v. Arizona, 384 U.S. 436 (1966); Bram v. United States, 168 U.S. 532 (1897); Counselman v. Hitchcock, 142 U.S. 547 (1892). From another perspective, however, the defendants' Fifth Amendment claims were more compelling than those raised in earlier cases. The government's surveillance had produced 775 typed

against self-incrimination must derive from a violation of the defendant's Fourth Amendment rights.[47]

No Fourth Amendment violation occurred, however, because use of the wiretaps was not a search or a seizure. The majority applied property law concepts with a newly discovered textual literalism that had the practical effect of freeing the government conduct from constitutional scrutiny. "The Amendment itself shows that the search is to be of material things—the person, the house, his papers or his effects. . . . [A warrant] must specify the place to be searched and the person or *things* to be seized."[48]

Applying this concrete view of the Amendment's scope, the majority held that no search had occurred because the government had not committed a physical trespass into a constitutionally protected areas.[49] The wiretaps had been placed on telephone lines outside the suspects' homes and offices.[50] The majority reasoned that telephone lines connecting telephones "are not part of his house or office any more than are the highways along which they are stretched,"[51] and the government's monitoring did not infringe upon the suspects' property-based interests. A physical trespass was the sine qua non of a search.

Similarly, no seizure occurred because spoken words were intangible, and the Fourth Amendment text only applied to tangible property.[52] Overhearing conversations, even by electronic means, did not constitute an exercise of physical dominion over property, and therefore did not fall within the ambit of the Amendment.[53]

The majority acknowledged that a long line of precedents had rejected textual literalism, holding that the Fourth and Fifth

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pages of notes reporting the defendants' telephone conversations. Presumably these were reports of the defendants' oral statements. The defendants raised the plausible claim that use of the conversations as evidence against them at trial made them unwilling witnesses against themselves. *Olmstead*, 277 U.S. at 471 (Brandeis, J., dissenting).

[47] *Olmstead*, 277 U.S. at 462.

[48] *Id.* at 464.

[49] *Id.* at 464 ("There was no searching . . . There was no entry of the houses or offices of the defendants.").

[50] *Id.* at 457.

[51] *Id.* at 465.

[52] *Id.* at 466.

[53] *Id.*

Amendments were to be "liberally construed to effect the purpose of the framers . . . in the interest of liberty,"[54] but concluded that to apply the Fourth Amendment to non-trespassory electronic monitoring would enlarge the language of the text "beyond the possible practical meaning."[55] The majority's concern that the Court had gone too far in applying the Fourth Amendment liberally was apparent,[56] and it responded by drastically narrowing the property-related interests protected by the Fourth Amendment.

Olmstead used property as the glue needed to bind together the parts of a new theoretical construct whose other constituent elements were a rigid textual literalism and a parsimonious vision of the rights protected by the Fourth Amendment. This new construct prompted each of the four dissenters to write opinions. Justice Brandeis' dissent,[57] with its eloquent proclamations about the nature of democracy, individual liberty, and the dynamic nature of constitutional interpretation, is the most famous, and justifiably so.

Brandeis defended as powerfully as one could the idea that the Court must adapt its constitutional theories to encompass technologies unimaginable to those who crafted the founding laws: "Time works changes, brings into existence new conditions and purposes. Therefore a principle to be vital must be capable of wider application than the mischief which gave it birth."[58]

Like his predecessors on the Court who had enunciated an expansive vision of the rights protected by the Fourth Amendment, and who had treated property rules as a vehicle for expanding, not constricting, the limits on government power, Brandeis emphasized the need to protect the values which the constitutional text was designed to preserve in the face of intrusive new technologies.[59] "Discovery and invention have made it possible for the government, by means far more effective than stretching upon the rack, to obtain disclosure in court of what is whispered in the closet."[60] The *Olmstead* trespass and tangible property doctrines permitted the government to obtain information efficiently and in the process destroy "the right to be let alone—the most comprehensive of rights and the right most valued by civilized men."[61]

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[54] *Id.* at 465.

[55] *Id.*

[56] *See id.* at 463.

[57] *Id.* at 471 (Brandeis, J., dissenting).

[58] *Id.* at 472-73 (Brandeis, J., dissenting) (quoting Weems v. United States, 217 U.S. 349, 373 (1910)). *See id.* at 472 (citing Supreme Court decisions in which the Court had interpreted the various parts of the Constitution in cases involving "objects of which the fathers could not have dreamed.").

[59] *See* Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 193 (1890) ("Political, social, and economic changes entail the recognition of new rights, and the common law, in its eternal youth, grows to meet the demands of society."); *id.* at 195 (calling for legal protection against inventions

Brandeis' dissent is the best known, but Justice Butler's long forgotten dissenting opinion[62] is the most helpful for understanding how radical the majority opinion actually was. Butler explained how the Court's traditional property-based theories could have been employed to encompass technological surveillance. First, the interpretive approach employed in *Boyd* and its progeny taught that the "[C]ourt has always construed the Constitution in the light of the principles upon which it was founded,"[63] and these principles include "the rule of liberal construction that always has been applied to the provisions of the Constitution safeguarding personal rights."[64] The *Olmstead* majority's constricted textual literalism violated these fundamental principles and "sound reason."[65]

Second, such an expansive interpretive theory could enlist an equally vibrant theory of property rights to enforce the values embodied in the Amendment. For example, people use telephones to communicate and these conversations "belong to the parties between whom they pass."[66] Butler analogized private conversations to private property. Conversations "belong" to the speakers, just as property belongs to its owners.[67] By analogy, using technology to intrude upon a private conversation is equivalent to a physical

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(like photography) that enabled new invasions of privacy). Almost forty years before *Olmstead* was decided, Warren and Brandeis predicted that "numerous mechanical devices threaten to make good the prediction that what is whispered in the closet shall be proclaimed from the house-tops." *Id. See also id.* at 206.

[60] *Olmstead*, 277 U.S. at 473.

[61] *Id.* at 478.

[62] *Id.* at 485 (Butler, J., dissenting).

[63] *Id.* at 487.

[64] *Id.*

[65] *Id.* at 487-88.

[66] *Id.* at 487.

[67] *See* Warren & Brandeis, *supra* note 59, at 213 (discussing the ownership and control of private letters).

trespass upon private property.[68]

Contract rights, another species of property, also supported application of Fourth Amendment rules to wiretapping. People talking on the telephone utilize physical property, including telephone lines, in which they possess contract rights:

> The contracts between telephone companies and users contemplate the private use of the facilities employed in the service. . . . During their transmission the exclusive use of the wire belongs to the persons served by it. Wire tapping involves interference with the wire while being used. Tapping the wires and listening in by the officers literally constituted a search for evidence. As the communications passed, they were heard and taken down.[69]

What distinguished Butler's dissent from Chief Justice Taft's majority opinion was not the idea that Fourth Amendment rights are linked to property rights. Rather, it was the underlying set of values that animated each writer's analyses. Butler, like Brandeis, expressed the belief that certain parts of the Constitution implement a broad notion of individual liberty, enact potent constraints on government power,[70] and must be construed liberally to achieve the broad purposes underlying the text.[71]

The majority, on the other hand, worried that excluding evidence in these circumstances "would make society suffer and give criminals greater immunity than has been known heretofore."[72] A half century later,[73] the Justices would reject literalist property theories yet deploy similarly instrumentalist reasoning to justify decisions that insulated even more powerful technologies from Fourth Amendment scrutiny.

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[68] Ironically, this echoes the language in the Supreme Court's most recent decision interpreting the relationship between a new technology and the Fourth Amendment. *See infra* notes 163-73 and accompanying text.

[69] *Olmstead*, 277 U.S. at 487. *Olmstead* was overruled almost forty years later in *Katz v. United States*, 389 U.S. 347 (1967).

[70] In this dissent, Brandeis quoted a passage from *Boyd* in which the Court had stressed that the Fourth and Fifth Amendments embody principles that "reach farther than the concrete form of the case there before the [C]ourt . . . ." *Olmstead*, 277 U.S. at 474 (Brandeis, J., dissenting).

[71] *Id.* at 472-79.

[72] *Id.* at 468.

[73] During the intervening decades, the Supreme Court continued to use *Olmstead's* literalist treatment of property rights in cases involving technological surveillance and Fourth Amendment theory. *See, e.g.*, Silverman v. United States, 365 U.S. 505 (1961); Goldman v. United States, 316 U.S. 129 (1942), *overruled by* Katz v. United States, 389 U.S. 347 (1967).

II. *KATZ* AND REASONABLE EXPECTATIONS OF PRIVACY

A. *Procedure Over Substance: The Exclusionary Remedy*

Olmstead's treatment of property as a limitation upon the scope of privacy rights would dominate Fourth Amendment case law involving technological surveillance for almost 40 years.[74] But a theory that effectively insulated nontrespassory technological monitoring from constitutional scrutiny carried the seeds of its own demise. By mid-century, the invention and use of increasingly sophisticated technologies that permitted investigators to intrude directly into the lives of people pressed the Court to abandon this restrictive property-based theory of the Fourth Amendment.[75] That process began in the early 1960s, and was completed by a pair of 1967 opinions, *Warden, Md. Penitentiary v. Hayden*[76] and *Katz v. United States*.[77]

From a theoretical perspective, this substitution of theories was unnecessary. The Supreme Court could have employed property-based theories to extend the reach of the Fourth Amendment to electronic surveillance. Justice Butler's dissent in *Olmstead* provides one example of how that option—resting upon a broad vision of constitutional liberties implemented by private property rights—could have been developed. Instead, the Warren Court attempted to sever Fourth Amendment doctrine from property rights and rely almost exclusively on procedural limits on government power.

To understand the significance of this undertaking, it is necessary to return briefly to the 1920s. By the time of its 1921 decision in *Gouled v. United States*,[78] the Supreme Court had enunciated a two-pronged test for judging the legality of searches and seizures that had both procedural and substantive "faces."[79] A search or seizure of a home or office satisfied the Fourth Amendment only if government actors had complied with the procedural requirements of the Fourth Amendment's Warrant Clause (oath, probable cause, particularity, and judicial decision making). On the other hand, intrusions not authorized by a valid warrant were both unreasonable and unconstitutional.[80]

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[74] *See, e.g.*, *Silverman*, 365 U.S. at 50; *Goldman*, 316 U.S. at 129.

[75] *See Katz*, 389 U.S. at 347.

[76] 387 U.S. 294 (1967).

[77] 389 U.S. 347 (1967).

[78] 255 U.S. 298 (1921).

[79] *See, e.g.*, *Hayden*, 387 U.S. at 313 (Douglas, J., dissenting).

If this threshold procedural requirement was satisfied, a second inquiry focusing upon substantive property rights still remained. A unanimous Court emphasized in *Gouled* that even a valid search warrant could not justify the search of a home or office unless the search was for forfeited property, property concealed to avoid payment of duties, required records, counterfeit currency, or various criminal instrumentalities, including burglars' tools, weapons, and gambling implements.[81] An item's classification within this property-based scheme defined the nature and scope of the *substantive* limits imposed by the Fourth Amendment.[82] These property-based substantive limits on government power produced a "mere evidence" rule: the government could not search for and seize property it wanted for use only as evidence.

The Supreme Court overruled *Gouled*'s "mere evidence rule" in *Warden, Md. Penitentiary v. Hayden.*[83] Scholars of the Fourth Amendment typically treat *Katz* as the opinion that cleaved the Fourth Amendment from property rights; in fact, *Hayden* was the opinion that laid the analytical foundation for that theoretical leap. In *Hayden*, the Court acknowledged that Gouled (and a long line of cases) rested upon

> the dual, related premises that historically the right to search for and seize property depended upon the assertion by the Govern-

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[80] *Gouled*, 255 U.S. at 308. *See also* Amos v. United States, 255 U.S. 313 (1921).

[81] *Gouled*, 255 U.S. at 308.

[82] *See id.* at 309 (citing Boyd v. United States, 116 U.S. 616, 623, 624 (1886)):

> [O]nly when a primary right to such search and seizure may be found in the interest which the public or the complainant may have in the property to be seized, or in the right to the possession of it, or when a valid exercise of the police power rends possession of the property by the accused unlawful and provides that it may be taken.

[83] *Hayden*, 387 U.S. at 294.

> ment of a valid claim of superior interest, and that it was not enough that the purpose of the search and seizure was to obtain evidence to use in apprehending and convicting criminals.[84]

This traditional approach also was consistent with the English common law that had influenced the Framers, and which had decreed that the legitimacy of a search and seizure "depended upon proof of a superior property interest."[85]

Citing two of its decisions from earlier in the 1960s as authority, the Court then asserted that

> [t]he premise that property interests control the right of the Government to search and seize has been discredited. Searches and seizures may be 'unreasonable' within the Fourth Amendment even though the Government asserts a superior property interest at common law. We have recognized that the principal object of the Fourth Amendment is the protection of privacy rather than property, and have increasingly discarded fictional and procedural barriers rested on property concepts.[86]

Again citing Warren Court decisions from the 1960s, including *Mapp v. Ohio*,[87] which had imposed the exclusionary remedy upon the states, the majority declaimed that

> [t]he premise in Gouled that government may not seize evidence simply for the purpose of proving crime has likewise been discredited. The requirement that the Government assert in addition some property interest in material it seizes has long been a fiction, obscuring the reality that government has an interest in solving crime.[88]

In other words, substantive property rights no longer served as a limit on searches and seizures. Fourth Amendment rights were now to be protected only by procedural devices—and in *Hayden* the Court emphasized the procedural protections offered by the exclusionary rule[89]—and not by substantive legal rights derived from property law. Instead, some evanescent and barely articulated concepts of privacy were to be protected. Only months later, the Supreme Court would apply this new formula to the problem of electronic surveillance of conversations, and in the process revolutionize Fourth Amendment theory. Again, it emphasized procedural rights and minimized the importance of substantive rights defined by positive law.

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[84] *Id.* at 303.

[85] *Id.* at 304.

[86] *Id.* at 304 (citing Jones v. United States, 362 U.S. 257, 266 (1960); Silverman v. United States, 365 U.S. 505, 511 (1961)).

[87] 367 U.S. 643 (1961). *See also* Schmerber v. California, 384 U.S. 757 (1966).

[88] *Hayden*, 387 U.S. at 306.

B. Reasonable Expectations of Privacy: Katz *and Warrants*

As early as 1960, the Warren Court had begun to move tentatively away from the traditional use of property law concepts to define the full scope of Fourth Amendment rights.[90] By 1967 (only six months after jettisoning the mere evidence rule in *Hayden*), a bare majority was ready to complete the process in *Katz v. United States*.[91] The facts of the case recalled the investigative techniques used by federal agents forty years earlier in the *Olmstead* case.

FBI agents acting without a warrant attached an electronic "bug" to the outside of a public telephone booth Katz used to place interstate telephone calls. The "bug" transmitted sounds from inside the booth, which permitted government agents to listen to Katz's end of those conversations.[92] Katz was prosecuted for violating a federal anti-gambling statute. At his trial, the government introduced these monitored conversations as evidence against him, and Katz was convicted.[93]

As had been true in *Olmstead*, federal agents had been able to install and use the electronic monitoring device without trespassing upon the suspect's property. Unlike *Olmstead*, where the defendant's conversations had occurred in private homes and offices, Katz had spoken in a public telephone booth, which hardly seemed to be a "constitutionally protected area" under traditional property rules. Nonetheless, the parties argued the issues in terms of the Court's property-based precedents. They disputed, for example, whether a phone booth was a constitutionally protected area, and debated the significance of the absence of a physical penetration into the telephone booth.[94]

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[89] Id. at 307-308.

[90] *See, e.g.*, *Silverman*, 365 U.S. at 509–11 (stating that an intangible conversation can be seized under the Fourth Amendment, but finding it unnecessary to decide whether a trespass into a constitutionally protected area was necessary because such an intrusion had actually occurred); Jones v. United States, 362 U.S. 257 (1960) (granting standing to challenge a government search and seizure to a visitor in an apartment although he had no legally enforceable property interest as owner or tenant), *overruled in part on other grounds by* United States v. Salvucci, 448 U.S. 83 (1980).

[91] 389 U.S. 347 (1967).

[92] *Katz*, 389 U.S. at 348.

[93] *Id.*

The majority's dismissive response to the parties' characterization of the issues signaled that it was performing an act of judicial sleight of hand: it was revolutionizing existing law while pretending that it is merely following established precedent. Although the parties had framed the issues in terms consistent with four decades of case law, the majority opinion dismissed these arguments as if the Court's precedents did not exist. It wrote disparagingly: "Because of the misleading way the issues have been formulated, the parties have attached great significance to the characterization of the telephone booth . . . ."[95] After rejecting this conventional characterization of the issues as "misleading," the majority constructed a new mechanism for determining the nature and scope of Fourth Amendment rights.

The new mechanism explicitly rejected the idea that property law defined the interests protected by the Fourth Amendment. Citing the six-month old decision in *Hayden*, Justice Stewart's majority opinion authoritatively proclaimed that "'[t]he premise that property interests control the right of the government to search and seize has been discredited.'"[96] The opinion overruled the *Olmstead* trespass doctrine and reaffirmed a recent opinion holding that the Fourth Amendment protects intangible conversations as well as tangible property.[97]

The majority's narrow purpose in overruling what was left of *Olmstead* was obvious. It intended to extend the reach of the Fourth

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[94] *See id.* at 349–52. The trespass doctrine had been reaffirmed in *Goldman v. United States*, 316 U.S. 129 (1942).

[95] *Katz*, 389 U.S. at 351.

[96] *Id.* at 353 (quoting *Hayden*, 387 U.S. at 304).

[97] *Id. affirming* Silverman v. United States, 365 U.S. 505, 511 (1961).

Amendment—and therefore the possibility of constitutional judicial review—to encompass new technologies that permitted government agents to monitor private conversations without any physical trespass.[98]

The parts of the opinion overruling *Olmstead* and attempting to eject property law from Fourth Amendment theory were consistent with elements of the Court's recent opinions. But when the majority attempted to design a replacement for property law, the result was so complex, convoluted, incoherent, and ultimately unhelpful, that one wonders whether the Court had turned secretly to Rube Goldberg (who was still alive at the time) for advice.

The obvious replacement for property as an organizing principle was *privacy*, the right to be left alone, what Justice Brandeis had called "the right most valued by civilised men" in his famous *Olmstead* dissent.[99] That solution was too simple for the *Katz* majority, however, because "the Fourth Amendment cannot be translated into a general constitutional right to privacy. That Amendment protects individual privacy against certain kinds of governmental intrusion, but its protections go further, and often have nothing to do with privacy at all."[100]

If not property or privacy, just what does the Amendment protect? The *Katz* majority pronounced that it "protects people, not places."[101] This answer was unsatisfactory both as a logical proposition and as an interpretation of the constitutional text.

The text does specify that the Amendment protects "[t]he right of the *people* to be free from unreasonable searches and seizures," but it also specifies that this right extends to a specific category of

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[98] *See, e.g.*, Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 384 (1974) (explaining how *Katz* returned the Fourth Amendment to the "grand conception" of *Boyd*); *id.* at 385, 400-03; Melvin Gutterman, *A Formulation of the Value and Means Models of the Fourth Amendment in the Age of Technologically Enhanced Surveillance*, 39 SYRACUSE L. REV. 647, 657 (1988).

[99] Olmstead v. United States, 277 U.S. 438, 478 (1928) (Brandeis, J., dissenting).

[100] *Katz*, 389 U.S. at 350. The majority continued: "Other provisions of the Constitution protect personal privacy from other forms of governmental invasion. But the protection of a person's general right to privacy—his right to be let alone by other people—is, like the protection of his property and of his very life, left largely to the law of the individual States." *Id.* at 350-351.

[101] *Id.* at 351.

places, houses, and to apparently all personal property ("papers and effects") which have to be kept some *place*.[102] Papers and effects will occasionally be found on a *person* (who also is protected by the Amendment), but surely most personal property is kept most of the time in homes, offices, factories, garages or vehicles. In short, the *property* protected by the Amendment is either a place (houses) or almost always stored in a place.

The Court's attempt to explicate the notion that the Amendment "protects people not places" only compounded the confusion. It explained: "What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected."[103]

Under traditional canons of constitutional interpretation, one is entitled to complain that this borders on the nonsensical as Fourth Amendment theory. At the very least, it contradicts the Amendment's text and history. For example, a literal application of this passage suggests that the Fourth Amendment does not protect a person's private *papers* from government investigations in his *home* if the person has "knowingly exposed" those papers to members of the public. Yet this fact scenario describes a paradigm case for Fourth Amendment protection—the eighteenth century English cases, including the searches of Lord Camden's home for copies of the seditious *publication*, The North Briton. At this late date it is beyond reasonable debate that the litigation spawned in the 1760s by these searches and seizures inspired the Fourth Amendment's framers,[104] who surely considered such a search within the scope of the Amendment.

The concept that what a person seeks to keep private *may* be protected under the Amendment but what he knowingly exposes is not also seems to eliminate any coherent doctrine of substantive rights protected by the Amendment. It is unclear how the Court expected that its replacement for property rights would operate in future cases, except that whatever rights the Amendment protected could be violated by nontrespassory electronic surveillance of conversations. The Court's capacity to define the nature and scope of Fourth Amendment rights no longer was constrained by the tenets of positive law. This new, amorphous standard granted judges maximum discretion in deciding what government conduct amounted to a search.

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[102] U.S. CONST. amend. IV (emphasis added).

[103] *Katz*, 389 U.S. at 351-352 (citations omitted).

[104] See Boyd v. United States, 116 U.S. 616 (1886); Morgan Cloud, *Searching through History; Searching for History*, 63 U. CHI. L. REV. 1707 (1996).

Perhaps because it had created a standard that was substantively vacuous, the Court again emphasized the procedural protections offered by the Amendment. Although it found that the manner in which the federal agents had installed and used the "bug" to monitor Katz's telephone conversations was otherwise reasonable,[105] the agents had violated the Fourth Amendment because they had failed to get a judicial warrant. A warrant was required as the antecedent justification for a search, including electronic monitoring of phone calls in public telephone booths. Failure to obtain a warrant triggered the exclusionary rule, the other procedural mechanism used to protect these rights. The notion of a coherent body of positive law that defined the substantive "face" of Fourth Amendment rights was seemingly excluded from Fourth Amendment theory. Only the procedural mechanisms of the warrant process and the exclusionary rule survived as limits on government power.

Although the Court soon began to interpret the meaning of the awkward *Katz* formula by using an ostensibly more coherent two-part test taken from Justice Harlan's concurring opinion in *Katz*, even this new standard did little to constrain judicial discretion. Justice Harlan had asserted that a protected Fourth Amendment interest exists when two conditions are met: "[f]irst[,] that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable.'"[106]

The Court has converted this language into the now well-known two-part "expectations" formula it uses to explain its conclusions in individual cases.[107] Often these conclusions are surprising, particularly in cases involving the use of technology. The *Katz* majority intended to subject at least some technologies to Fourth Amendment scrutiny. Nonetheless, subsequent Supreme Court opinions typically have held that the use of technology was not a search, and therefore did not have to conform to Fourth Amendment standards. The Court has repeatedly concluded that even if the defendant held a subjective expectation that his conduct was private, this was not an expectation our society is willing to recognize as reasonable. Ultimately, the outcomes of these cases have turned on the subjective views of a majority of the Justices about what privacy expectations are objectively "reasonable."

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[105] *See Katz*, 389 U.S. at 356 ("It is apparent that the agents in this case acted with restraint.").

[106] *Id.* at 361 (Harlan, J., concurring).

[107] *See, e.g.*, California v. Ciraolo, 476 U.S. 207, 211 (1986).

This is not to say that a Court applying the *Katz* expectations standard is wrong to emphasize the second prong. As long as the two part expectations standard is employed to resolve fundamental issues, the Court is correct to focus upon the "objective" prong because the first prong is, for all practical purposes, functionally irrelevant. As Professor Amsterdam noted long ago, an individual's actual subjective expectation can "neither add to, nor can its absence detract from, an individual's claim to Fourth Amendment protection."[108] And this is not the only shortcoming inherent in the now ubiquitous *Katz* standard.[109] After a third of a century, it is fair to conclude that *Katz* is a failure, at least if its original purpose was to ensure that Fourth Amendment standards regulate the use of modern surveillance technologies.

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[108] *See* Amsterdam, *supra* note 98, at 384; *see also* Gutterman, *supra* note 98, at 675–76.

[109] The Court has applied the expectations test in a wide range of settings. These include motor vehicles: The Court's opinions establish that people have a lessened expectation of privacy in their automobiles and containers located in them. United States v. Ross, 456 U.S. 798 (1982); *see also* California v. Acevedo, 500 U.S. 565 (1991); United States v. Johns, 469 U.S. 478 (1985). Automobile passengers have no privacy interest in the areas under the seat or in an unlocked glove compartment, and therefore lack standing to challenge a search of those areas. Rakas v. Illinois, 439 U.S. 128 (1978). An automobile owner has no reasonable expectation of privacy in a vehicle's identification number, even when police officers must search the vehicle to locate the number. New York v. Class, 475 U.S. 106 (1986). The *Katz* test governs privacy interests in personal and real property: A person claiming ownership of illegal drugs does not have standing to challenge the search that uncovered the contraband if the drugs were located in another's bag because he has no reasonable expectation of privacy in that container. Rawlings v. Kentucky, 448 U.S. 98 (1980). A resident who deposits closed, opaque garbage bags on the curb outside his home has no reasonable expectation of privacy in the contents of those bags. California v. Greenwood, 486 U.S. 35 (1988). A public employee may or may not have a reasonable expectation of privacy in his office. O'Connor v. Ortega, 480 U.S. 709 (1987). Even vigorous attempts to exclude trespassers, including erecting fences and posting no trespassing signs,

Although the *Katz* opinion held that the warrantless use of an electronic bug on a public telephone booth violated the Constitution, only four years later the Court concluded that no warrant was needed if one party to a conversation approved of its use, even for conversations that occurred in a home.[110] The Court has held that installing an electronic beeper to monitor a person's travels in public does not invade a reasonable privacy expectation,[111] but tracking the same beeper in a private home may be a search requiring authorization by a warrant.[112] The latter principle is significant because, in spite of the claim in *Katz* that the Fourth Amendment protects people, not places, it is apparent that the Court believes that a person often has a greater privacy expectation in his home than in other locations.[113] In fact, other than cases involving the kind of electron-

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do not create a reasonable expectation of privacy in open fields, therefore a physical trespass by police officers is not a search. United States v. Dunn, 480 U.S. 294 (1987); Oliver v. United States, 466 U.S. 170 (1984).

[110] *See* United States v. White, 401 U.S. 745 (1971). *See also* Memorandum from John Ashcroft to the Heads and Inspectors General of Executive Departments & Agencies re: *Procedures for Lawful, Warrantless Monitoring of Verbal Communications* (May 30, 2002), *available at* http://www.usdoj.gov/olp/lawful.pdf (last visited Oct. 8, 2002). This Memorandum revised executive branch guidelines, and was issued in part to facilitate the use of electronic surveillance techniques. It asserted:

> The Fourth Amendment to the United States Constitution, Title III of the Omnibus Crime Control and Safe Streets Act of 1968, as amended (18 U.S.C. §2510, *et seq.*), and the Foreign Intelligence Surveillance Act of 1978 (50 U.S.C. §1801, *et seq.*) permit government agents, acting with the consent of a party to a communication, to engage in warrantless monitoring of wire (telephone) communications and oral, nonwire communications. See *United States v. White*, 401 U.S. 745 (1971); *United States v. Caceres*, 440 U.S. 741 (1979). Similarly, the Constitution and federal statutes permit federal agents to engage in warrantless monitoring of oral, nonwire communications when the communicating parties have no justifiable expectation of privacy.

Id.

[111] United States v. Knotts, 460 U.S. 276 (1983).

[112] United States v. Karo, 468 U.S. 705 (1984).

[113] *See, e.g.*, Kirk v. Louisiana, 122 S. Ct. 2458 (2002); United States v. Ross, 456 U.S. 798 (1982); Steagald v. United States, 451 U.S. 204 (1981); Payton v. New York, 445 U.S. 573 (1980).

ic surveillance at issue in *Katz*, the Court has usually found that the use of technology to discover information about a suspect was a Fourth Amendment search only if the technology provided some information about activities inside a home.

For example, the Court has concluded that people have no privacy expectation in the numbers dialed from their telephones.[114] If the telephone company uses a machine called a pen register to record those numbers at government request, this is not a search or seizure.[115] Similarly, people have no reasonable expectation of privacy in copies of deposit slips and checks maintained with microfilm technology by their banks.[116] A chemical "field test" that actually destroys the tested material when it is used to determine whether a substance is cocaine is not a search because "no legitimate privacy interest has been compromised" because "Congress has decided . . . to treat the interest in 'privately' possessing cocaine as illegitimate."[117]

Perhaps the most perplexing technology cases have involved visual surveillance from flying machines. The Court's three opinions involving aerial surveillance of private property all have held that the government did not engage in conduct amounting to a Fourth Amendment search. Although the Court had previously confirmed that the curtilage surrounding the home receives the same level of Fourth Amendment protection as the home itself,[118] in two of these cases it declared that ocular surveillance of areas within the curtilage that was only possible from a flying machine was not a search.[119] In the third, it permitted use of powerful cameras to enhance visual surveillance from airplanes, and in the process announced a baffling definition of the technologies that trigger Fourth

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[114] Smith v. Maryland, 442 U.S. 735 (1979).

[115] *Smith*, 442 U.S. at 735.

[116] United States, v. Miller, 425 U.S. 435 (1976).

[117] United States v. Jacobsen, 466 U.S. 109, 123 (1984). Similar reasoning led to the conclusion that having trained drug detection dogs sniff travelers' luggage does not constitute a search. United States v. Place, 462 U.S. 696 (1983).

[118] Oliver v. United States, 466 U.S. 170, 180 (1984) (stating that the curtilage "has been considered part of the home itself for Fourth Amendment purposes"); *see also* United States v. Dunn, 480 U.S. 294, 300 (1987) (the common law has always given "the area immediately surrounding a dwelling house the same protection under the law").

[119] See *infra* notes 142-56 and accompanying text.

Amendment scrutiny.

In the first of these cases, *California v. Ciraolo*,[120] police officers received an anonymous tip that Ciraolo was growing marijuana in his backyard. The officers' initial attempts to corroborate the tip failed because the yard was enclosed within both a six-foot outer fence and a ten-foot inner fence, which shielded the back yard—part of the home's curtilage—from ground level observation. Displaying admirable initiative, the investigating officers overcame this obstacle to their investigation by obtaining use of a private airplane that allowed them to fly over the home and its backyard. While flying at an altitude of 1000 feet, the officers said they could visually identify marijuana growing in the yard. They also took photographs, and used the tip, their visual observation of the yard, the photographs, and other information to obtain a search warrant. The police officers who executed the warrant seized marijuana plants growing in the yard.[121]

Although the backyard lay within the curtilage,[122] an area that ostensibly receives the Fourth Amendment protections accorded the home, a five-Justice majority concluded that Ciraolo's subjectively held expectation of privacy (demonstrated by the presence of two fences)[123] was not objectively reasonable when extended to aerial surveillance. Apparently that expectation is reasonable only for those who choose to cover their yards with a roof. The best justification for the majority opinion is that airplanes do carry people over the planet, providing a vertical vantage point for some types of viewing. Nonetheless, much of the reasoning in the opinion exhibits the internal logic of another Rube Goldberg contraption.

To make that point, I will act like a Justice applying the expectations test, and both my assumptions and conclusions will be based upon my own life experience. Relying upon that subjective frame of reference, I immediately conclude that it is safe to assume that most people traveling in airplanes are passengers on commercial flights. I also conclude that even if travelers on commercial flights do get fleeting glimpses of individual homes and yards, they are almost never able to associate those observations with a particular yard or person. Obviously, a low-flying private plane offers a more intimate view of property under it, but the *Ciraolo* opinion cited no evidence that any flight other than the police investigative foray had ever occurred over Ciraolo's home, nor any facts suggesting that any pilot of a small private aircraft had ever flown over that home for the purpose of looking into the yard. My subjective conclusion, therefore, is that Ciraolo was objectively reasonable in expecting privacy in his fenced backyard. Like the *Ciraolo* majority, I reach this conclusion without resort to constitutional authority.

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[120] 476 U.S. 207 (1986).

[121] *Ciraolo*, 487 U.S. at 209–10.

[122] *Id.* at 212–13.

[123] *Id.* at 211.

Apparently, the only legal authority necessary to justify the majority's conclusion that the existence of air flight had destroyed any expectation of privacy anyone can have in an unroofed yard consisted of the Federal Aviation Administration (FAA) regulations defining navigable airspace and permitting airplanes to fly at an altitude of 1000 feet.[124] As long as police investigators complied with these air safety regulations, a homeowner's privacy expectations in unroofed yards were unreasonable.

The majority accorded no constitutional significance to the fact that the officers were forced to use an airplane to get to a vantage point that allowed them to peer into Ciraolo's yard. A private airplane surely is not a regular mode of transportation for most people, and looking down on a home in a residential neighborhood from an altitude that is nearly equivalent to the height of the Empire State Building hardly seems a common occurrence. Nonetheless, the majority concluded that this warrantless observation was not a search because it "took place within public navigable airspace . . . in a physically nonintrusive manner."[125] To reach this conclusion the majority both had to ignore a central holding of *Katz*—physical trespass is no longer relevant to determining the existence of a Fourth Amendment violation—and also draw some remarkable analogies.

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[124] Even when the Justices have claimed that their expectations analysis rests upon established legal standards, they have failed to reach analytical unanimity. For example, in *Oliver v. United States*, 466 U.S. 170 (1983), the majority asserted that in determining whether government acts violate a reasonable privacy expectation relating to a particular place, "the Court has given weight to such factors as the intention of the Framers of the Fourth Amendment, . . . the uses to which the individual has put the location, . . . and our societal understanding that certain areas deserve the most scrupulous protection from government invasion." *Oliver*, 466 U.S. at 178 (citations omitted). The dissenters in *Oliver* countered with a different list of three factors, arguing that the Court had considered: (1) whether the expectation is rooted in entitlements defined in positive law; (2) the nature of the uses to which this type of space can be put; and (3) whether the person asserting the privacy interest manifested it in a way that most people would understand. *Id.* at 189 (Marshall, J., dissenting). Other opinions have asserted that a Fourth Amendment privacy expectation is reasonable "if it is rooted in a 'source outside of the Fourth Amendment, either by reference to concepts of real or personal property law or to understandings that are recognized and permitted by society.'" Dow Chem. Co. v. United States, 476 U.S. 227, 248 (1986) (Powell, J., concurring in part and dissenting in part) (quoting Rakas v. Illinois, 439 U.S. 128, 143–44 n.12 (1978)). Expectations analysis seems to be based more on the Justices' subjective values, experiences, and views of the social good than in any of the various legal criteria they cite.

For example, the majority equated a police officer's naked eye surveillance of a home from an airplane flying in navigable airspace with his observation of a home while traveling on a public thoroughfare.[126] In other words, looking into someone's yard from a public sidewalk is equivalent to using a flying machine to get to a vantage point above the fence surrounding that yard. Perhaps even more remarkably, the Court equated (for constitutional purposes) an intentional police investigation of a particular citizen's home with the possibility that an imaginary private citizen flying in a hypothetical commercial or private airplane might glance down at random properties.[127]

I have noted elsewhere that this reasoning is not entirely illogical: "After all, airplanes are flying up there, and even marijuana growers must know that."[128] But the Court's convoluted reasoning constructed out of such subjective and questionable assumptions is hardly a reassuring model of constitutional analysis. Indeed, by comparison the discredited property-based standards of the past appear to be a model of logical consistency and clarity. Three years after *Ciraolo*, the Court had another opportunity to clarify the constitutional rules governing the use of flying machines to conduct visual surveillance. Instead, acting like a group of mad inventors adding bits and pieces to an already puzzling contraption, the Justices issued an even more fractious and confusing set of opinions.

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[125] *Ciraolo*, 476 U.S. at 213 (citation omitted). The Court's reference to the second factor is surprising because *Katz* expressly overruled the trespass doctrine. See *supra* notes 96-100 and accompanying text.

[126] *Ciraolo*, 476 U.S. at 213 (a warrant was not required for such an aerial observation because the "Fourth Amendment protection of the home has never been extended to require law enforcement officers to shield their eyes when passing by a home on public thoroughfares.").

[127] *Id.* at 213–14 ("Any member of the public flying in this airspace who glanced down could have seen everything that these officers observed.").

[128] Morgan Cloud, *Pragmatism, Positivism, and Principles in Fourth Amendment Theory*, 41 UCLA L. REV. 199, 259 (1993).

Although they possessed neither probable cause nor a warrant, law enforcers investigating a lead in *Florida v. Riley*,[129] flew a helicopter only 400 feet above Riley's rural residential property. This permitted them to see inside a greenhouse situated within the curtilage of Riley's mobile home.[130] The greenhouse had a roof, although about ten percent of the roof area was not covered.[131] The holes in the roof did not affect ground level surveillance, because the greenhouse walls were opaque, and trees, shrubs and the home itself stood between the greenhouse and any lawful, nontrespassory ground level observation point. The home and greenhouse were both surrounded by a wire fence and a "Do Not Enter" sign was posted on the property.

A four Justice plurality decided that using the helicopter to permit the officers to see into the greenhouse was not a search, because once again the citizen's subjective expectation (here that the interior of his greenhouse would be free from aerial surveillance) was objectively unreasonable.[132] The nine Justices were unable to agree upon the proper theory for determining whether and when the presence of air travel could defeat such an expectation.

The four joining in the plurality opinion assumed that flights are common and required no proof on the issues.[133] In her concurring opinion, Justice O'Connor argued for a different approach. She concluded that the Court faced an empirical question—how frequently do flights occur—but would have imposed the burden on the party moving to suppress evidence to demonstrate that flights are uncommon.[134] The four dissenters all agreed that this was at least in part an empirical question, but all would have placed the burden of proof upon the state, not the citizen.[135]

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[129] 488 U.S. 445 (1989).

[130] *Riley*, 488 U.S. at 449.

[131] *Id.* at 448.

[132] *See Riley*, 488 U.S. at 450–51 (stating "Riley could not reasonably have expected that his greenhouse was protected from public or official observation" from navigable airspace).

[133] The plurality noted the number of helicopters registered in the United States but not Florida, and cited no evidence of any helicopter flights in the area. *Id.* at 451 n.2. The plurality instead based its judgment upon evidence not in the record: "[T]here is no indication that such flights are unheard of in Pasco County, Florida." The plurality quoted from *Ciraolo* to support the proposition that flights are routine in this country. *Id.* at 450. Later it noted the *absence* of evidence in the court record that "helicopters flying at 400 feet are sufficiently rare in this country to lend substance to respondent's claim that he reasonably anticipated that his greenhouse would not be subject to observation from that altitude." *Id.* at

On other points, the plurality's reasoning generally recapitulated the factors that were outcome determinative in *Ciraolo*. The police were in a legal location when they looked into the greenhouse because the pilot had complied with FAA regulations defining navigable airspace. These regulations permit helicopters to fly below the levels set for fixed wing aircraft when it is safe to do so. Finally, the aerial surveillance did not amount to a trespassory interference with Riley's use of the property.[136]

Once again Justices found themselves defining Fourth Amendment rights in terms of the officially discredited trespass doctrine. Not surprisingly, dissenters pointed out the doctrinal confusion inherent in an analysis reasserting the importance of a physical trespass to explain why an expectation of privacy is not reasonable under *Katz*.[137] More than twenty years after *Katz*, the Court found itself still unable to escape the messy reality that they could not cre-

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451–52. *See also id.* at 457 (Brennan, J., dissenting) (asserting that the plurality's theory is that a privacy expectation "is defeated if a single member of the public could conceivably position herself to see into the area in question without doing anything illegal.").

[134] Justice O'Connor argued that under *Katz* this was an empirical question not answered by the fact that FAA safety regulations were satisfied. "[W]e must ask whether the helicopter was in the public airways at an altitude at which members of the public travel with sufficient regularity. . . . If the public rarely, if ever, travels overhead at such altitudes, . . . Riley cannot be said to have 'knowingly expose[d]' his greenhouse to public view." *Id.* at 454–55. (O'Connor, J., concurring) (second alteration in original). She concurred in the judgment, however, because she concluded that the defendant had the burden of proving that his expectation was reasonable, and he had not met her empirical test. *Id.* at 455.

[135] *Id.* at 465–66 (Brennan, J., dissenting); *id.* at 468 (Blackmun, J., dissenting) (asserting the burden of proof should be imposed on the state because of his personal belief that helicopters rarely fly over private property at an altitude of 400 feet, but citing no evidence to support that belief).

[136] *Id.* at 450-452.

[137] *Id.* at 456 (Brennan, J., dissenting).

ate a coherent theory fully severing analysis of Fourth Amendment rights from property concepts. Once again, they found themselves forced to define improper intrusions in terms of the presence or absence of a physical trespass.

Of course, this brings us full circle, back to the fundamental defect in the *Olmstead* formulation of the trespass doctrine. In *Olmstead*, this rationale insulated all nontrespassory technological monitoring of conversations from constitutional scrutiny. Sixty years later, the *Riley* plurality found itself in the awkward position of arguing that using a flying machine to gather information from within the most "constitutionally protected area" was not a search because it was completed without committing a trespass.

One of the most provocative elements of the Court's opinion in *Kyllo v. United States*,[138] its latest foray into the realm of technological searches, is that Justice Scalia may have finally provided a clear, simple answer to this dilemma. His opinion provides at least an outline of a test that would permit regulation of technological intrusions while preserving the apparently unavoidable concept of trespass in Fourth Amendment theory. That topic is discussed in the next Part of this article.

III. WHAT TECHNOLOGY TRIGGERS FOURTH AMENDMENT SCRUTINY?

One might assume that answering this question is the logical starting point for any rational critique of the constitutional status of technological surveillance devices. One might expect, therefore, that the Supreme Court would have developed a carefully crafted answer to such a fundamental question. One would be wrong.

A. *The* Dow *Standard*

Indeed, if forced to choose among the three theoretical innovations examined in this article, I would quickly award the "Rube Goldberg Award"[139] to the Supreme Court's attempts to define the technologies regulated by the Fourth Amendment. Until last year, the leading case in the post-*Katz* era was *Dow Chemical Co. v. United States*,[140] an opinion that remains important if only because the flawed test it produced survives in modified form.[141]

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[138] 533 U.S. 27 (2001).

[139] Even thirty years after his death, Rube Goldberg's name lives on in the multitude of contests that bear his name. *See* http://news.uns.purdue.edu/UNS/rube/rube.index.html (college engineering fraternities) (last visited Oct. 8, 2002); http://www.rube-goldberg.com/html/contest.htm (elementary school students) (last visited Oct. 8, 2002); http://www.anl. gov/OPA/rube/ (professional scientists)

Dow had refused to allow a warrantless Environmental Protection Agency (EPA) inspection of Dow's 2,000 acre industrial facility in Midland, Michigan. Dow had endeavored to prevent both ground level and aerial observation of the facility by outsiders, assertedly to protect trade secrets. Dow had fenced the entire area, had employed security guards to patrol the complex, and had reacted vigorously when it detected aerial surveillance of the facility.[142]

To obtain information about the manufacturing facility, the EPA used a powerful camera mounted in a private airplane to take photographs of the facility from altitudes of 12,000, 3,000, and 1,200 feet.[143] The camera captured details not visible to the naked eye from these altitudes. As the district court specifically found, the "use of 'the finest precision aerial camera available' permitted the EPA to capture on film 'a great deal more than the human eye could ever see.'"[144]

The Supreme Court concluded that use of this sophisticated technology was not a search regulated by the Fourth Amendment because Dow had no reasonable expectation of privacy against aerial observation of its industrial facility.[145] The holding rested in part upon the Court's characterization of the facility's status as a species of property.[146] The fenced industrial complex was not "open fields," it was certainly not a home and the majority rejected the idea that

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(last visited Oct. 8, 2002).

[140] 476 U.S. 227 (1986).

[141] See infra p. 38-39.

[142] *Dow Chem. Co.*, 476 U.S. at 229. *See id.* at 241–42 (Powell, J., concurring in part and dissenting in part). *But see id.* at 237 n.4 (arguing that Dow had not taken significant steps to protect against aerial observation).

[143] *Id.* at 229.

[144] *Id.* at 230.

[145] *Id.* at 239. The Court relied in part on its reasoning in *Ciraolo*. *Id.* Apparently the only way Dow could have created such an expectation would have been to roof the 2,000 acre facility. *See id.* at 237 n.4.

[146] *See id.* at 244 (Powell, J., concurring in part and dissenting in part) (arguing that the majority opinion ignores relevant precedent and relies instead "on questionable assertions" about the means of surveillance and the character of the area observed).

this type of area deserved constitutional protection as "industrial curtilage." Reasoning as if it wanted to emphasize the impossibility of completely escaping the clutches of pre-*Katz* property concepts,[147] the majority also found it significant that the aerial surveillance was accomplished without a physical trespass onto private property.[148]

What distinguished *Dow* from some of the Court's other opinions, however, was the Court's barely constrained enthusiasm for the emergence of new technologies and their inevitable use by law enforcers. It mused, for example:

> The photographs at issue in this case are essentially like those commonly used in mapmaking. Any person with an airplane and an aerial camera could readily duplicate them. In common with much else, the technology of photography has changed in this century. These developments have enhanced industrial processes, and indeed all areas of life; they have also enhanced law enforcement techniques.[149]

One would hardly expect Justices praising technological advances that "have enhanced . . . all areas of life" to announce a test that would prevent government agents from taking advantage of technological progress, and they did not. Instead, the *Dow* Court excluded from Fourth Amendment regulation technologies that it found to be *generally available* to the public. Police use of such devices to enhance their sensory abilities did not require a warrant because—like the aerial surveillance of Ciraolo's home and curtilage—it was not a search. The *Dow* Court grudgingly conceded only that warrantless observation of private property by means of "highly sophisticated surveillance equipment *not generally available* to the public . . .

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[147] *See id.* at 235 (Court noted one of the issues raised by the case was "whether the common-law 'curtilage' doctrine encompasses a large industrial complex such as Dow's").

[148] *Id.* at 234–39. The majority noted, for example: "Any actual physical entry by EPA into any enclosed area would raise significantly different questions, because '[t]he businessman, like the occupant of a residence, has a constitutional right to go about his business free from unreasonable official entries upon his private commercial property.' The narrow issue raised by Dow's claim of search and seizure, however, concerns aerial observation of a 2,000-acre outdoor manufacturing facility without physical entry." *Id.* at 237 (citations omitted).

[149] *Id.* at 231.

might be constitutionally proscribed absent a warrant."[150]

This amorphous standard raised more questions than it answered, but it was consistent with key assumptions used to justify the results in *Dow's* companion case, *Ciraolo v. California*.[151] First, although the Fourth Amendment limits only government conduct, *Dow* equated government investigations with observations by members of the general public.[152] Second, the *Dow* "test" did not require proof that members of the public actually used the technology—let alone used it against the party asserting Fourth Amendment rights. The fact that members of the public had adequate access to the technology was sufficient to defeat a party's expectation of privacy against purposeful government surveillance with that technology. Finally, the Court failed to establish any objective or empirical standards for determining when the public's access to the technology satisfied the "generally available" standard.

The best the Court could do was offer hypothetical examples. Although the $22,000 camera[153] used by the EPA was capable of capturing details far beyond the power of human sight, revealing objects as small as 1/2 inch in diameter, it was not a sophisticated technology generally unavailable to the public.[154] Conversely, pictures taken by cameras mounted on satellites *might* fall within the ambit of the Fourth Amendment because these camera were not yet "generally available."

The critical word in the preceding sentence is "yet." *Dow* accepted the premise that technological progress would inevitably dictate that our privacy expectations must decrease as intrusive technologies become more widely dispersed and readily available. The Court's own example confirms this attribute of the *Dow* approach. When the Court decided *Dow* in 1986, members of the general public undoubtedly had little access to satellites that could take photographs of specific locations. That is no longer the case. In the past sixteen years, the number of satellites launched and operated by private commercial entities has expanded, and any private sector actor with the financial wherewithal now can obtain photographs taken by cameras mounted on satellites.[155] If a majority on the Court now concluded that such technology had become "generally available" to the public, government use of satellites to photograph the activities occurring within residential curtilage would not be a search under *Dow*—although it would have been a search in 1986.

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[150] *Id.* at 238 (emphasis added).

[151] *See supra* notes 120-27 and accompanying text.

[152] *See also Dow Chem. Co.*, 476 U.S. at 234. ("EPA, as a regulatory and enforcement agency, needs no explicit statutory provision to employ methods of observation commonly available to the public at large: we hold that the use of aerial observation and photography is within EPA's statutory authority.").

[153] *Id.* at 242 n.4 (Powell, J., concurring in part and dissenting in part).

[154] *See id.* at 238 n.5; *id.* at 243 (Powell, J., concurring in part and dissenting in part).

Dow thus articulated a standard that shared the fundamental defect embedded in the *Olmstead* trespass and tangible property doctrines. Both opinions permitted government to employ many new and sophisticated technologies to observe and record the activities people carry on in their private residential and business property free from any constitutional limits.

Despite its affection for new technologies, the *Dow* majority did draw the line at the use of devices that permitted one specific kind of intrusion:

> The mere fact that human vision is enhanced somewhat, at least to the degree here, does not give rise to constitutional problems. An electronic device to penetrate walls or windows so as to hear and record confidential discussions of chemical formulae or other trade secrets would raise very different and far more serious questions.[156]

These "far more serious questions" raised by electronic devices that allowed investigators to learn information about activities occurring inside the walls of a home appeared in the Court's latest Fourth Amendment technology case. The case is noteworthy because it may signal that the Court is ready to attempt to abandon the *Katz* test and to construct yet another constitutional mechanism for evaluating the use of surveillance devices.

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[155] For a sample of these opportunities, see for example http://www.digitalglobe.com (last visited Oct. 8, 2002); http://www.spaceimaging.com/index_text.htm (last visited Oct. 8, 2002); http://www.terraserver.com/ (last visited Oct. 8, 2002).

[156] *Dow Chem. Co.*, 476 U.S. at 238-39.

B. Kyllo *and Technological Trespass: A Return to Property Law?*

Danny Kyllo was growing marijuana in his Oregon home. In an effort to establish that fact, investigators used a thermal imaging device to measure the relative heat emanating from Kyllo's house. No trespass occurred because the investigators were able to use the device while sitting in an automobile on the streets adjacent to Kyllo's house. A Federal Magistrate Judge concluded that the results of this thermal imaging, the size of Kyllo's utility bills, and informants' tips provided probable cause and issued a search warrant. The searchers discovered an indoor agricultural operation using halide lamps, which had produced the heat detected by the thermal imager, and more than 100 marijuana plants. Kyllo entered a conditional guilty plea, and after protracted legal proceedings, the Ninth Circuit Court concluded that the agents' use of the thermal imager was not a search.[157]

The Supreme Court reversed in an opinion that could prove to be a watershed in Fourth Amendment theory. It is not unusual for a Supreme Court opinion that appears to signal momentous doctrinal change to prove inconsequential over time.[158] But occasionally an opinion really does portend a reshaping of constitutional doctrine,[159] and Kyllo could be one of those cases.[160]

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[157] See Kyllo v. United States, 533 U.S. 27, 30-31 (2001) (summarizing the procedural history of the case). For a more detailed discussion of the procedural history of the Kyllo case in the lower courts, see David A. Sklansky, *Back to the Future: Kyllo, Katz, and Common Law*, 72 MISS. L.J. 143, 171-77 (2002).

[158] See, e.g., Lambert v. California, 355 U.S. 225, 232 (1957) (Frankfurter, J., dissenting) ("I feel confident that the present decision will turn out to be an isolated deviation from the strong current of precedents—a derelict on the waters of the law.")

[159] An important recent example is Unites States v. Lopez, 514 U.S. 549 (1995) (for the first time in 60 years, the Supreme Court struck down a federal statute on the grounds that Congress exceeded its powers under the Commerce Clause). Justice Souter complained in dissent that the decision might "portend a return to the untenable jurisprudence from which the Court extricated itself almost 60 years ago." *Id.* at 608. Some commentators worried that Lopez would turn back the clock, and was a first step toward a new era of judicial activism in which the Court would strike down federal and state legislation (the latter on federalism grounds) as it had during the so-called Lochner era of substantive due process theory. *See* Morgan Cloud, *The Fourth Amendment During the Lochner Era: Privacy, Property, and Liberty in Constitutional Theory*, 48 STAN. L. REV. 555, 630-

The Ninth Circuit's ultimate ruling that Kyllo had no reasonable expectation of privacy in the heat emanating from his house is understandable. Arguably the warrantless surveillance of his home was less intrusive than the visual surveillance of residential curtilage approved in *Ciraolo* and *Riley*:

> Thermal imagers detect infrared radiation, which virtually all objects emit but which is not visible to the naked eye. The imager converts radiation into images based on relative warmth — black is cool, white is hot, shades of gray connote relative differences; in that respect, it operates somewhat like a video camera showing heat images. The scan of Kyllo's home took only a few minutes and was performed from the passenger seat of Agent Elliott's vehicle across the street from the front of the house and also from the street in back of the house. The scan showed that the roof over the garage and a side wall of petitioner's home were relatively hot compared to the rest of the home and substantially warmer than neighboring homes in the triplex. Agent Elliott concluded that petitioner was using halide lights to grow marijuana in his house, which indeed he was.[161]

Under *Katz*, *Ciraolo*, and *Riley*, the government and the *Kyllo* dissenters could argue plausibly that Danny Kyllo had no expectation of privacy in the temperature of the exterior walls of his house, which serve as a border between the home's interior and the curtilage. A nontrespassory measurement of some physical condition of the exterior wall could rationally be a characterized as a fact knowingly exposed to the public. It is equally plausible to believe that most people would consider this surveillance to be less intrusive than having police officers fly over a home at low altitude and take

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631 (1996). Some of these predictions have proven to be correct. The Court's recent attempts to revise post-1937 theories of federalism suggest the possibility that some Justices might be interested in pre-1928 theories of the Fourth Amendment, as well.

[160] It may not be a coincidence that, like the two earlier decisions that recast Fourth Amendment theory in response to modern technology, Kyllo was decided by a bare 5-4 majority. *Olmstead* and *Katz* split the Justices in part because each opinion worked a radical change in constitutional theory. *Kyllo* may have produced a similar division precisely because it presages doctrinal ferment of comparable magnitude.

[161] *Kyllo*, 533 U.S. at 29-30.

photographs of a fenced yard or look into a private outbuilding adjacent to the home.

Similarly, the government could claim that enough thermal imaging devices had been manufactured to satisfy *Dow*'s "generally available to the public" standard.[162] Under *Dow*, use of such a common device is not a search, making the requirements of the Warrant Clause irrelevant.

The majority's initial statement of the issue in the case was framed in conventional post-*Katz* terms that suggested that once again the Court might accept the warrantless use of a technological surveillance device: "The case presents the question of whether the use of a thermal-imaging device aimed at a private home from a public street to detect relative amounts of heat within the home constitutes a 'search' within the meaning of the Fourth Amendment."[163] Similarly, Justice Scalia's initial summary of the controlling law did not hint at changes in theory. He noted, for example, that "[t]he permissibility of ordinary visual surveillance of a home used to be clear because, well into the 20th century, our Fourth Amendment jurisprudence was tied to common-law trespass,"[164] then summarized the changes in theory wrought by *Katz* and its progeny.[165] This discussion included some pointed barbs about the quality of the Katz model,[166] but Justice Scalia's concerns about *Katz* are well-known,[167] and his discussion of *Ciraolo*, *Dow*, and the Court's other technology cases was unremarkable.

But what followed was extraordinary. First, Justice Scalia re-framed the issue confronting the Court in terms that echoed arguments raised by *Katz*'s most provocative critics. He began by noting the impact technology has had on personal privacy:

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[162] *See, e.g.*, *Kyllo*, 533 U.S. at 47 n.5 (Stevens, J., dissenting) ("The record describes a device that numbers close to a thousand manufactured units; that has a predecessor numbering in the neighborhood of 4,000 to 5,000 units; that competes with a similar product numbering from 5,000 to 6,000 units; and that is 'readily available to the public' for commercial, personal, or law enforcement purposes, and is just an 800-number away from being rented from 'half a dozen national companies' by anyone who wants one."). Thermal imaging devices are available to the public from vendors who advertise on the internet. *See, e.g.*, http://www.flirthermography.com (last visited September 5, 2002).

[163] *Kyllo*, 533 U.S. at 29.

[164] *Id.* at 31.

[165] Id. at 32-33.

[166] *Id.* at 34 ("The *Katz* test . . . has often been criticized as circular, and hence subjective and unpredictable.").

[167] See, e.g., Minnesota v. Carter, 525 U.S. 83, 97 (1998) (Scalia, J., concurring).

> It would be foolish to contend that the degree of privacy secured to citizens by the Fourth Amendment has been entirely unaffected by the advance of technology. . . . The question we confront today is what limits there are upon this power of technology to shrink the realm of guaranteed privacy.[168]

Justice Scalia chose to recast the issue in language that aligned the majority with some of the most trenchant and best-known critics of the Court's modern decisions authorizing government agents to use ever more intrusive technologies without requiring even the procedural protections offered by the warrant process.[169] Indeed, Justice Scalia's language was reminiscent of perhaps the most poignant criticism of the two-part expectations test as a sufficient mechanism for preserving liberty in the face of technological surveillance. Thirty years before *Kyllo*, Justice Harlan expressed concerns about how the Court was applying the two-part expectations analysis that he had crafted only four years earlier in his *Katz* concurrence, then offered a constitutional test that anticipated the Court's language in *Kyllo*:

> The first of these assumptions takes as a point of departure the so-called "risk analysis" approach . . . or the expectations approach of Katz. . . . While these formulations represent an advance over

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[168] *Katz*, 533 U.S. at 33-34.

[169] *See, e.g.*, Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 403 (1974) (the proper analysis is "whether, if the particular form of surveillance practiced by the police is permitted to go unregulated by constitutional restraints, the amount of privacy and freedom remaining to citizens would be diminished to a compass inconsistent with the aims of a free and open society."); *see also* United States v. White, 401 U.S. 745, 756 (1971) (Douglas, J., dissenting):

> At the same time the concepts of privacy which the Founders enshrined in the Fourth Amendment vanish completely when we slavishly allow an all-powerful government, proclaiming law and order, efficiency, and other benign purposes, to penetrate all the walls and doors which men need to shield them from the pressures of a turbulent life around them and give them the health and strength to carry on.

> the unsophisticated trespass analysis of the common law, they too have their limitations and can, ultimately, lead to the substitution of words for analysis. The analysis must, in my view, transcend the search for subjective expectations or legal attribution of assumptions of risk. Our expectations, and the risks we assume, are in large part reflections of laws that translate into rules the customs and values of the past and present. Since it is the task of the law to form and project, as well as mirror and reflect, we should not, as judges, merely recite the expectations and risks without examining the desirability of saddling them upon society. The critical question, therefore, is whether under our system of government, as reflected in the Constitution, we should impose on our citizens the risks of the electronic listener or observer without at least the protection of a warrant requirement.[170]

This is the kind of value-driven analysis that was the hallmark of the Court's early decisions enforcing an expansive vision of individual liberty with property law concepts, and which was abandoned by the Court in *Olmstead*. One would be naive to expect the Court to return to the property-based concepts of an earlier century (even if it was the Framers' century), but old concepts can be adapted to modern problems, and it may well be that the Court has begun to do this in *Kyllo*—starting with the easiest case, the home.

The majority opinion emphasized that the thermal imager provided information about the interior of a home, not in some other place.[171] It finessed the problem of extending its analysis to other locations, asserting that "it may be difficult to refine *Katz* when the search of areas such as telephone booths, automobiles, or even the curtilage and uncovered portions of residences are at issue."[172] Here, however the thermal imager had been aimed at a home,

> for which there is a ready criterion, with roots deep in the common law, of the minimal expectation of privacy that *exists*, and that is

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[170] United States v. White, 401 U.S. 745, 786 (1971).

[171] The majority rejected Justice Stevens' dissenting argument that thermal imagers only provide "off the wall" surveillance, not "through the wall" intrusions. *Kyllo*, 533 U.S. at 38-39. Justice Stevens' argument seems to embody a kind of bad physics that would make his analysis seem trivial if it were not so consistent (at least in the results it produces) with the Court's treatment of these issues in cases from *Olmstead* to *Dow*.

[172] *Kyllo*, 533 U.S. at 34.

> acknowledged to be *reasonable*. To withdraw protection of this minimum expectation would be to permit police technology to erode the privacy guaranteed by the Fourth Amendment.[173]

It has become common in recent years for the Justices to turn to the common law to support their Fourth Amendment argument, and Justice Scalia deserves no small part of the credit (or blame) for this. Nonetheless, the "ready criterion with roots deep in the common law" he articulated was stunning. The test had several parts, but the core appears to be the functional equivalent of the long forgotten property-based analysis Justice Butler proposed in his *Olmstead* dissent more than seventy years earlier.[174]

> We think that obtaining by sense-enhancing technology any information regarding the interior of the home *that could not otherwise have been obtained without physical 'intrusion into a constitutionally protected area,' constitutes a search*—at least where (as here) the technology in question is not in general public use. This assures preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted. On the basis of this criterion, the information obtained by the thermal imager in this case was the product of a search.[175]

The highlighted language suggests the basis for resolving the Court's seventy-five year struggle to accommodate technology, privacy, and liberty under the umbrella of Fourth Amendment theory. The highlighted language is a creative adaptation of the traditional linkage of property concepts to Fourth Amendment rights with the reality of modern technology. It uses the physical trespass as an objective measure of an intrusion triggering constitutional scrutiny, while extending this protection to analogous non-trespassory intrusions achieved by technological means. It is almost elegant in its simplicity. If the government uses technology to obtain information from within "a constitutionally protected area" that would have otherwise been inaccessible without a physical trespass, it has conducted a search that must satisfy the requirements of the Warrant Clause. And lest anyone think this remarkable passage was a mistake, the Court repeated it near the end of the opinion.[176]

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[173] *Id.* at 34.

[174] *See supra* notes 62-68 and accompanying text.

[175] *Id.* at 34-35 (citation omitted (emphasis added).

Even if applied solely to surveillance of the home, *Kyllo*'s enunciation of the concept of a technological trespass into a constitutionally protected area is significant because it appears to reject both *Olmstead* and *Katz* and to replace them with a standard that avoids some basic defects of each opinion. But it may well be that the Court will not stop with the home. This amalgam of property law, trespass theory, and technology could readily be extended to other settings.

Consider, for example, the aerial surveillance cases. Applying the new *Kyllo* approach, the Court could properly reach the same outcome in *Dow*. Although the government used an airplane and a sophisticated camera to secure information otherwise obtainable only by means of a physical trespass, the *Dow* opinion stressed that "[w]e find it important that this is not an area immediately adjacent to a private home, where privacy expectations are most heightened."[177] In *Kyllo*'s terms, the outside of an industrial facility is not a "constitutionally protected area." Although the *Dow* Court struggled with the problem of characterizing the industrial facility as open fields or industrial curtilage,[178] the dilemma was unnecessary. In the leading "open fields" cases, the property owners had taken steps to exclude trespassers that were analogous to the steps taken by Dow. They had erected barriers, like fences and gates, to keep unwanted visitors off their private property that was devoted to essentially commercial purposes. It is hard to understand why the outdoor portion of a 2,000 acre commercial facility that produces chemicals deserves greater protection than a 200 acre farm next to a home that produces agricultural products. "Government has 'greater latitude to conduct warrantless inspections of commercial property' because 'the expectation of privacy that the owner of commercial property enjoys in such property differs significantly from the sanctity accorded an individual's home.'"[179] Therefore, Court could rationally treat the outdoor areas of the farm and the industrial facility as constitutional equivalents. By simply analogizing the facts of *Dow* to its common law open fields doctrine, the Court could easily include these cases within the new Kyllo "functional equivalent of a trespass" test. The warrantless aerial surveillance in Dow still would satisfy constitutional standards.

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[176] *Id.* at 40.

[177] *Dow Chem. Co.*, 476 U.S. at 237 n.4.

[178] *Dow Chem. Co.*, 476 U.S. at 235-37.

[179] *Id.* at 237-38.

Conversely, the outcomes in the cases involving aerial surveillance of the curtilage of homes would be reversed. Because the curtilage is a "constitutionally protected area" under traditional property law concepts, the use of flying machines to obtain information that otherwise could have been gained only by means of a trespass would violate the Fourth Amendment—unless the surveillance had been authorized by a warrant.

As the preceding analysis suggests, the modified trespass theory announced in *Kyllo* can be applied rationally in other fact settings. Had the opinion stopped with this creative innovation, it would have taken a remarkable step in the direction of a coherent doctrine of technological searches. However, this remains an analytical domain in which the logical rules seem to have been dictated by some Rube Goldberg acolyte. Apparently incapable of making a clean break with the detritus of *Katz*, the Court reasserted the worst of its expectations concepts, modified it a bit, then hammered and glued it onto the new technological trespass doctrine. Reconsider the key passage with different language emphasized:

> We think that obtaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without physical 'intrusion into a constitutionally protected area,' constitutes a search—*at least where (as here) the technology in question is not in general public use.*[180]

While the first half of the sentence reclaims notions of property and trespass, the second half clutches madly onto *Katz*'s most defective technological product—the *Dow* test for defining the technologies covered by the Amendment. Well, only half-madly, for the *Kyllo* test adds a minor improvement. It is no longer enough that a technology be "generally available" to the public. For the device to be exempted from constitutional scrutiny, the general public must actually be *using* the thing. If the Court means what it writes here, the

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[180] *Kyllo*, 533 U.S. at 34-35 (emphasis added).

Fourth Amendment does not disappear simply because any member of the general public *could* hire a satellite to take photographs; the general public must actually be engaged in that conduct.

Unfortunately, most of the theoretical deficiencies of the *Dow* standard survive. The last clause of the *Kyllo* test still equates government searches with actions by the general public; it still fails to provide any measure for judging when a device is in general public use; and it still allows the apparently inevitable improvement in and dispersion of technology to diminish the scope of personal privacy and liberty. This passage is literally inconsistent with the trespass concepts embodied in the first part of the sentence.

Three quarters of a century after the Court bungled the task in *Olmstead*, the Justices still have failed to craft a coherent, functional test for regulating modern technology while preserving the rights embodied in the Fourth Amendment. Fortunately, *Kyllo* hints at the possibility that the Court is moving—if only in small, tentative steps—to finally replace both the stunted trespass doctrine of *Olmstead* and the dysfunctional expectations analysis spawned by *Katz*.

What should this new approach include? First, it should not merely retain but must also emphasize the notion that the technological equivalent of a physical trespass can trigger a Fourth Amendment violation. Second, it should extend this notion to settings outside of the interior of the home. At the very least, this should include other property that has traditionally received Fourth Amendment protection, including the home's curtilage, closed containers like luggage, and the interior of private commercial buildings.

Finally, and most importantly, it should enunciate an expansive, value-based theory of the scope of the Fourth Amendment and its role in preserving privacy and liberty—without which our democracy cannot survive. Such a theory animated the Court's most important decisions interpreting this part of the constitutional text until it confronted technological surveillance for the first time in *Olmstead*. This expansive view of constitutional liberty was the impetus for *Katz*, although subsequent decisions have obliterated that element of the decision. Justice Scalia's opinion in *Kyllo* suggests that the Court might be ready to try to reclaim this essential element of our constitutional heritage by replacing the present "convoluted system of achieving a basic task" with a "technological trespass" theory. May they succeed in the effort.

KATZ, *KYLLO*, AND TECHNOLOGY: VIRTUAL FOURTH AMENDMENT PROTECTION IN THE TWENTY-FIRST CENTURY

Tracey Maclin[*]

INTRODUCTION

The freedoms established in the Bill of Rights—including the Fourth Amendment right to be free from unreasonable governmental searches and seizures—were meant to endure. Advances in science and technology recurrently exert pressure on the scope and meaning of the Fourth Amendment,[1] but the privacy and security protected by the Fourth Amendment should not depend on innovations in technology. "When the American Republic was founded, the framers established a libertarian equilibrium among the competing values of privacy, disclosure, and surveillance. This balance was based on the technological realities of eighteenth-century life."[2] During the

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[*] Professor of Law, Boston University School of Law. I want to thank Tom Clancy for inviting me to speak at the University of Mississippi School of Law and to attend a symposium entitled, The Effect of Technology on Fourth Amendment Analysis and Individual Rights. I also want to thank the National Center for Justice and the Rule of Law at the University of Mississippi School of Law that is supported by a grant from the Bureau of Justice Assistance, Office of Justice Programs, of the U.S. Department of Justice, for its generous support of this article. Finally, I thank Jill Marr for her research assistance.

[1] As Justice Scalia notes: "It would be foolish to contend that the degree of privacy secured to citizens by the Fourth Amendment has been entirely unaffected by the advance of technology." Kyllo v. United States, 533 U.S. 27, 33-34 (2001); *see also* Raymond Shin Ray Ku, *The Founders' Privacy: The Fourth Amendment and the Power of Technological Surveillance*, 86 MINN. L. REV. 1325, 1344 (2002) (arguing that "[f]rom the beginning, the Supreme Court has taken a narrow view of the Fourth Amendment's role in limiting government discretion to employ novel technologies"); Thomas K. Clancy, *What Does The Fourth Amendment Protect: Property, Privacy, or Security*, 33 WAKE FOREST L. REV. 307, 335 (1998) (noting that the "overall tendency of the Court has been to contract the protected individual interest as a consequence of modern technological advances and their utilization by the government").

[2] ALAN F. WESTIN, PRIVACY AND FREEDOM 67 (1967).

Framers' era, the home was the focal point of privacy and personal security.[3] The Fourth Amendment proscribed intrusions into a home unless a government official obtained a judicial warrant supported by specific procedural safeguards.[4]

With the increased use of technology in the twentieth century, the Supreme Court confronted search and seizure questions never imagined by the Framers. During the first-half of the twentieth century, Fourth Amendment liberties typically fared poorly under the pressure of a technologically advancing society. For example, police investigative methods adapted to deal with the mobility of cars when automobile travel became accessible to many people. In 1925, the Court ruled a warrantless search of a car and its contents is reasonable, provided there is probable cause to believe that the vehicle contains contraband.[5] Three years later, the Court ruled the Fourth Amendment did not encompass police wiretapping of telephone conversations. The Court explained wiretapping involves neither a search nor seizure within the meaning of the Amendment,[6] and that "one who installs in his house a telephone instrument with connecting wires intends to project his voice to those quite outside, and that the wires beyond his house and messages while passing over them are not within the protection of the [Fourth] Amendment."[7] By the 1950's, pressure mounted, on and off the Court, to reconsider whether the Amendment's protective scope excluded wiretapping. Notwithstanding the criticism of its wiretapping ruling, in 1952 the Court held that use of a "wired spy" to capture the conversations of the defendant and a government informant who surreptitiously recorded them did not trigger Fourth Amendment protection.[8] The Court, however, scoffed at the notion that police use of a wired informant is akin to police wiretapping.[9]

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[3] *See, e.g.*, DAVID H. FLAHERTY, PRIVACY IN COLONIAL NEW ENGLAND 45 (1967).

[4] *See* Thomas Y. Davies, *Recovering the Original Fourth Amendment*, 98 MICH. L. REV. 547, 551 (1999) ("The historical statements about search and seizure focused on condemning general warrants. In fact, the historical concerns were almost exclusively about the need to ban house searches under general warrants.").

[5] Carroll v. United States, 267 U.S. 132, 149 (1925).

[6] Olmstead v. United States, 277 U.S. 438, 464 (1928). *Olmstead* explained that the Fourth Amendment does not forbid wiretapping. "There was no searching. There was no seizure. The evidence was secured by the use of the sense of hearing and that only. There was no entry of the houses or offices of the defendants." *Olmstead*, 277 U.S. at 464.

[7] *Id.* at 466.

Although the Court gave the police wide discretion to utilize technology to investigate individuals during the first half of the twentieth century,[10] the Court transformed its analytical approach toward electronic surveillance in the mid-1960's. First, the Court rejected its earlier conclusion that oral communications were not covered by the Fourth Amendment.[11] The Court then decided three cases which demonstrated a dramatic shift in the Justices' thoughts about electronic surveillance methods. Having previously determined that law enforcement officials could freely use wiretapping and wired informants without constitutional restraint, by 1967 the Court reversed course and ruled that judicial approval was a pre-condition to validate electronic surveillance.

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[8] On Lee v. United States, 343 U.S. 747, 751 (1952).

[9] *On Lee*, 343 U.S. at 754. The *On Lee* Court asserted: "It would be a dubious service to the genuine liberties protected by the Fourth Amendment to make them bedfellows with spurious liberties improvised by farfetched analogies which would liken eavesdropping on a conversation, with the connivance of one of the parties, to an unreasonable search or seizure." *Id.*

[10] In cases where electronic surveillance constituted a physical trespass or entry into a constitutionally protected area, Fourth Amendment safeguards were imposed. *Compare* Silverman v. United States, 365 U.S. 505, 510-12 (1961) (use of a "spike mike"–which is a device that made contact with a heating duct serving the house occupied by the defendants–was "an unauthorized physical penetration" of the premises, and thus a search under the Fourth Amendment), *with* Goldman v. United States, 316 U.S. 129, 135 (1942) (use of a detectaphone—which captures sound waves–placed against the wall of an office in order to overhear conversations in an adjoining office was no search because there was no physical trespass of the targeted office).

[11] *Olmstead* concluded that oral communications were not protected by the Fourth Amendment. *Olmstead*, 277 U.S. at 464. This conclusion was later rejected in *Silverman*, 365 U.S. at 511 (finding a Fourth Amendment violation because "the officers overheard the petitioners' conversations only by usurping part of the petitioners' house or office" without judicial authorization) and *Wong Sun v. United States*, 371 U.S. 471, 485 (1963) (explaining that *Silverman* recognizes that "the Fourth Amendment may protect against the overhearing of verbal statements as well as against the more traditional seizure of 'papers and effects.'"). *Cf.* United States v. White, 401 U.S. 745, 775 (1971) (Harlan, J., dissenting) (noting that *Wong Sun* "expressly brought verbal communications within the sweep of the Fourth Amendment").

In the first case, *Osborn v. United States*,[12] the Court approved a judicial order authorizing a tape recording of an attorney's conversation with a government informant. A detailed affidavit alleged that the attorney attempted to bribe a juror.[13] The *Osborn* Court specifically noted that the challenged electronic surveillance involved police monitoring "under the most precise and discriminate circumstances."[14] *Osborn* was an unusual case because government agents had sought judicial approval *before* undertaking electronic monitoring. Thus, *Osborn* was an unlikely precedent to affect major change in the way law enforcement officials conducted electronic surveillance. The discerning reader, however, would recognize that *Osborn* signaled the Justices' discomfort with previous rulings upholding electronic surveillance.[15]

While *Osborn* may not have caught the attention of law enforcement officials, a second case, *Berger v. New York*,[16] was a bombshell for the police. *Berger* invalidated New York's electronic surveillance statute. The Court found that the electronic surveillance that the statute authorized contained numerous constitutional flaws.[17] Beyond the specific constitutional objections that the majority listed, some of the *Berger* Court's harsh language condemning the New York statute "left the dissenting Justices (and many others) wondering whether *any* wiretapping or electronic eavesdropping statute could pass constitutional muster."[18]

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[12] 385 U.S. 323 (1966).

[13] *Osborn*, 385 U.S. at 328.

[14] *Id.* at 329.

[15] Prior to *Osborn*, in *Lopez v. United States*, 373 U.S. 427 (1963), the Court upheld the admission of testimony of an Internal Revenue agent's conversation with a defendant who had tried to bribe the agent and a tape recording of that conversation that was captured by a pocket recorder worn by the agent. *Lopez*, 373 U.S. at 440. The *Lopez* Court ruled that no unconstitutional invasion of Lopez's office occurred because the agent had the defendant's "consent, and while there [the agent] did not violate the privacy of the office by seizing something surreptitiously without petitioner's knowledge." *Id.* at 438. Four members of the *Lopez* Court wanted to overrule *On Lee*. *See id.* at 441-43 (Warren, C.J., concurring) (arguing that *On Lee* should be overruled, but distinguishing facts in *Lopez* from *On Lee* because the use and purpose of the electronic recording equipment in *On Lee* "was not to corroborate the testimony of the [government informant], but rather, to obviate the need to put him on the stand"); *see id.* at 446-53 (Brennan, J., dissenting) (arguing that *On Lee* and *Lopez* are indistinguishable). The *Osborn* majority avoided the debate that was left unsettled in *Lopez* "because it is evident that the circumstances under which the tape recording was obtained in this case fall within the narrower compass of the *Lopez* concurring and dissenting opinions." *Osborn*, 385 U.S. at 327.

[16] 388 U.S. 41 (1967).

Finally, *Katz v. United States*,[19] decided a year after *Osborn*, eliminated any lingering uncertainty about the constitutional validity of unchecked police wiretapping. *Katz* held that FBI agents violated the Fourth Amendment when, without judicial authorization, they attached an electronic listening and recording device to the outside of a public telephone booth that the defendant used.[20] *Katz* was a landmark case.[21] The ruling not only solidified the Court's view that the Constitution required judicial supervision of electronic surveillance, it also "purported to clean house on outmoded [F]ourth [A]mendment principles."[22] Moreover, in the view of many, the impact of *Katz* was "to expand rather than generally to reconstruct the boundaries of [F]ourth [A]mendment protection."[23] Put simply, the holding and logic of *Katz* was revolutionary. *Katz* moved the Court "toward a redefinition of the scope of the [F]ourth [A]mendment."[24] The passage of time, however, would show that *Katz* would do little to protect Fourth Amendment liberties.

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[17] *Berger*, 388 U.S. at 56, 58-59. *Berger* explained that the statute was unconstitutional because first, "[i]t lays down no requirement for particularity in the warrant as to what specific crime has been or is being committed, nor 'the place to be searched,' or 'the persons or things to be seized' as specifically required by the Fourth Amendment." *Id.* at 56; *see also id.* at 58-59. Second, the statute authorized surveillance "for a two-month period [which] is the equivalent of a series of intrusions, searches and seizures pursuant to a single showing of probable cause" and permitted extensions of surveillance on "a mere showing that such extension is 'in the public interest.'" *Id.* at 59. Third, the statute "places no termination date on the eavesdrop once the conversation sought is seized. This is left entirely in the discretion of the officer." *Id.* at 59-60. Finally, the statute did not require prompt return on the warrant "thereby leaving full discretion in the officer as to the use of seized conversations of innocent as well as guilty parties." *Id.* at 60.

[18] YALE KAMISAR ET AL., BASIC CRIMINAL PROCEDURE: CASES, COMMENTS AND QUESTIONS 352-53 (10th ed. 2002).

[19] 389 U.S. 347 (1967).

[20] *Katz*, 389 U.S. at 359.

[21] *See* 1 WAYNE R. LAFAVE, SEARCH AND SEIZURE § 2.1(b), at 385 (3d ed. 1996).

[22] Note, *From Private Places to Personal Privacy: A Post-*Katz *Study of Fourth Amendment Protection*, 43 N.Y.U. L. REV. 968, 975 (1968).

The technological advances of the twenty-first century will present new, and sometimes more challenging, issues as judges grapple with the question of how much privacy and security the Fourth Amendment provides.[25] At the start of this new century, the Court decided *Kyllo v. United States*,[26] which in tone and substance resembles *Katz*. *Kyllo* ruled that a thermal imaging device directed at a home constituted a search within the meaning of the Fourth Amendment.[27] The Court explained that a search occurs when government agents use sense-enhancing technology to collect any information regarding the interior of a home that could not otherwise be obtained without a physical invasion, "at least where (as here) the technology in question is not in general public use."[28] Like *Katz*, *Kyllo* is an important case for assessing the Court's current thinking on the interplay of technology and the Fourth Amendment. *Kyllo*'s long-term impact on search and seizure doctrine, however, remains uncertain.

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[23] Anthony Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 385 (1974).

[24] Edmund W. Kitch, Katz v. United States: *The Limits of the Fourth Amendment*, 1968 SUP. CT. REV. 133, 133; *see also* Stephen A. Saltzburg, *Another Victim of Illegal Narcotics: The Fourth Amendment (As Illustrated by the Open Fields Doctrine)* 48 PITT. L. REV. 1, 11-12 (1986) (explaining how *Katz* tends to redefine the scope of the Fourth Amendment); Albert W. Alschuler, *Interpersonal Privacy and the Fourth Amendment*, 4 N. ILL. U. L. REV. 1, 6 n.12 (1983) (explaining how *Katz* ties the right to privacy to "changing cultural expectations" of privacy). *Cf.* David A. Sklansky, *Back To The Future*: Kyllo, Katz, *and Common Law*, 72 MISS. L.J. 143, 145 (2002) (describing *Katz* as "perhaps the most influential search-and-seizure decision of the past half-century").

[25] *Cf.* Susan Bandes, *Power, Privacy and Thermal Imaging*, 86 MINN. L. REV. 1379, 1383 (2002) ("On a more basic level, technology advances pose the challenges that always beset the constitutional enterprise–those involved with trying to create fixed rules, or at least a workable rule of law, for a changing world. In this regard, technology *illustrates* the problem with trying to rely on fixed understandings of how the world works."); Gavin Skok, *Establishing a Legitimate Expectation of Privacy in Clickstream Data*, 6 MICH. TELECOMM. & TECH. L. REV. 61, 70 (2000) (noting the danger "that courts will rigidly adhere to outdated Fourth Amendment concepts which are ill-suited to cyberspace, leading to the conclusion that Web users lack legitimate expectations of privacy in clickstream data"). Occasionally, the key to resolving an emerging issue of the twenty-first century requires application of traditional constitutional doctrine. For example, Professor Orin Kerr has noted that "[a]lthough the Internet is a recent development with great promise for revolutionary change, the Fourth Amendment questions raised by encrypting Internet communications are decades (if not centuries) old." Orin S. Kerr, *The Fourth Amendment in Cyberspace: Can Encryption Create a "Reasonable Expectation of Privacy?"* 33 CONN. L. REV. 503, 532 (2001). In an insightful article, Professor Kerr contends that encryption cannot create a constitutionally protected privacy interest, and government efforts to unscramble an encrypted communication do not constitute searches under the Fourth Amendment. *Id.* at 517-24. Professor Kerr predicts that in resolving this issue, judges will ultimately discover that the Fourth Amendment issue raised by encryption "involve[s] old wine in new bottles." *Id.* at 532.

[26] 533 U.S. 27 (2001).

In a thoughtful and well-reasoned article, Professor David Sklansky states that *Kyllo* is likely to be one of the "touchstones" for the Court when it decides future cases involving the government's ability to use technology to gather information and fight terrorism.[29] According to Professor Sklansky, "[e]ven before [the] September 11 [terrorist attacks] . . . , it was apparent that *Kyllo* had significance beyond its narrow holding and beyond its value as a curiosity."[30] While I agree with much of Professor Sklansky's analysis of *Kyllo*, I do not share his view that *Kyllo*'s analytical framework will be a "touchstone[]" for future disputes involving technology and the Fourth Amendment. I predict that *Kyllo*'s impact on protecting Fourth Amendment liberties, like *Katz*, will be slight. Just as the Court later confined the "right" established in *Katz* to a privilege against clandestine wiretapping and electronic bugging without judicial supervision,[31] the Court is likely to construe the "right" announced in *Kyllo* narrowly. In other words, *Kyllo*, like *Katz*, will not prevent police officials from using other types of technology to monitor and discover information helpful to law enforcement interests.

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[27] *Kyllo*, 533 U.S. at 40.

[28] *Id.* at 34. *Kyllo*'s holding is announced in two different places in Justice Scalia's opinion. *See id.* ("We think that obtaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without physical 'intrusion into a constitutionally protected area' constitutes a search–at least where (as here) the technology in question is not in general public use.") (citation omitted); *id.* at 40 ("Where, as here, the Government uses a device that is not in general public use, to explore details of the home that would previously have been unknowable without physical intrusion, the surveillance is a 'search.'"). As Professor Christopher Slobogin perceptively explains, although *Kyllo*'s holding *expands* Fourth Amendment protection to include thermal imaging, it also *shrinks* the constitutional protection afforded private homes by codifying a "naked eye" exception to the warrant requirement. *See* Christopher Slobogin, *Peeping Techno-Toms and the Fourth Amendment: Seeing Through* Kyllo's *Rules Governing Technological Surveillance*, 86 MINN. L. REV. 1393, 1410 (2002) (explaining that, taken together, *Kyllo*'s holdings "announce that if the activity observed could be seen with the naked eye without physical intrusion into the constitutionally protected areas of home or curtilage, then police may exploit *any* technology–generally used or not–without implicating the Fourth Amendment."); *id.* at 1414 (noting that *Kyllo* "holds that enhanced searches of the home are permissible if they merely duplicate naked eye searches from vantage points that are not constitutionally protected").

[29] Sklansky, *supra* note 24, at 144.

Part I of this article briefly discusses the similarities between *Katz* and *Kyllo*. This section describes the common traits shared by *Katz* and *Kyllo*: both cases were immediately recognized as important rulings, both cases signaled a shift or readjustment of Fourth Amendment law, and both cases rest on a simple, but persuasive logic about the scope of protection provided by the Fourth Amendment. Part II analyzes the substance of the *Katz* ruling and considers the long-term impact of *Katz* for protecting Fourth Amendment rights against technological innovations. This section contends that *Katz* has failed to protect Fourth Amendment rights for two reasons. First, *Katz* was a ruling without substance. Second, the Justices who decided *Katz* were unable to agree on the meaning of their ruling, which made it easier for future Justices to ignore the relevance of *Katz* in subsequent cases concerning the reach of the Fourth Amendment.

Part III considers what impact *Kyllo* may have on future cases involving technology and the Fourth Amendment. Although *Kyllo*'s impact on Fourth Amendment liberties is uncertain at this point, this section argues that *Kyllo* is unlikely to prevent government officers from using technology to monitor and reveal information. The final section of the article, Part IV, examines how the Court might address the constitutional status of e-mail addressing information and whether Carnivore's pen mode intercept constitutes a search under the Fourth Amendment in a post-*Kyllo* world. Part IV contends that if Carnivore's pen mode intercept is judged by the rule announced in *Kyllo*, then the Court should find that this intrusion is a search. Nevertheless, Part IV concludes with the prediction that the Court will find that Carnivore's pen mode intercept does not violate the Fourth Amendment.

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[30] Sklansky, *supra* note 24, at 145.

[31] *See, e.g.*, United States v. United States Dist. Ct., 407 U.S. 297, 308 (1972).

I. THE SIMILARITIES BETWEEN *KATZ* AND *KYLLO*

A. *Both cases were immediately recognized as significant rulings*

Katz and *Kyllo* share three prominent characteristics. First, the public and legal profession recognized both cases as significant rulings that would impact Fourth Amendment doctrine. Legal commentators and the press immediately recognized *Katz* as an important case. The press commented on the break from the trespass rule[32] and expressed surprise that the Court was willing to uphold *any* electronic surveillance,[33] while legal commentators commented on the Court's new methodology for determining when a search occurs.[34]

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[32] Fred P. Graham, *A Plug in the 'Big Ear,'* N.Y. TIMES, Dec. 24, 1967, § 4, at 10 ("Last week the Supreme Court faced up to the scientific facts of life and held that the Fourth Amendment covers all police eavesdropping, whether accomplished by means of a trespass into private premises or not.").

[33] *See id.* ("[That the Court added that the bugging in *Katz* would have been constitutional had a search warrant been procured] caught many lawyers by surprise, because the tone of the Supreme Court's recent eavesdrop decisions has been so hostile that people assumed the Justices would hedge police-bugging in with so many legal technicalities that almost any useful eavesdropping would be deemed unconstitutional."); Fred P. Graham, N.Y. TIMES, Dec. 19, 1967, at A1 ("[T]he wording of the [*Katz*] decision erased an impression that had been created in a decision of the Court last June that the Supreme Court would insist on such elaborate procedures in connection with these warrants that bugging would become virtually useless as a police tool.").

[34] *See, e.g.*, Note, *From Private Places to Personal Privacy: A Post-*Katz *Study of Fourth Amendment Protection*, 43 N.Y.U. L. REV. 968 (1968) (describing *Katz* as a "landmark" case); *id.* at 981 ("[T]he *Katz* decision has pointed the way towards a complete re-orientation in the analysis of problems relating to governmental intrusion into individuals' private affairs."); *id.* ("Rather than relying on an interpretation of the nature and legitimacy of the Government's searching

Likewise, while *Kyllo* involved rather narrow facts, the press and legal academics quickly noted the significance of the ruling and the possible effect the ruling could have on the government's use of technology.[35]

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activity, the Court's holding was based solely on the validity of the individual's expectation of privacy. . ."); Kitch, *supra* note 22, at 133 ("The Supreme Court is moving toward a redefinition of the scope of the Fourth Amendment. *Katz v. United States*, . . . indicates that the Court is now prepared to release the Fourth Amendment, . . . from the moorings of precedent and determine its scope by the logic of its central concepts.") (footnotes omitted).

[35] *See, e.g.*, Linda Greenhouse, *The Supreme Court: Ruling on Surveillance Procedures; Justices Say Warrant Is Required in High-Tech Searches of Homes*, N.Y. TIMES, June 12, 2001, at A1 (describing *Kyllo* as an "important declaration of the constitutional limits on new privacy-threatening technology"); Linda Greenhouse, *As Crime Ebbs, Top Court's Privacy Rulings Flow*, N.Y. TIMES, June 17, 2001, § 4, at 16 (noting: "It is almost as if the public, liberated from the burdensome presence of crime, is free to express doubts about the civic costs of a whole range of crime-fighting strategies, from racial profiling to high-tech eavesdropping to low-tech drug-sniffing dogs."); David G. Savage, *Court Says No to Home Snooping Law: U.S. Justices Restrict the Use of Heat Sensors and Other High-Tech Spy Devices by Police*, L.A. TIMES, June 12, 2001, at A1 ("The ruling appears to put a significant limit on the government's use of new technologies that can pick up sounds or images inside a home . . . . The decision itself marked the third major ruling this year in which the justices have rejected drug searches and put new limits on the war on drugs."); Edward Walsh, High-Tech Devices Require a Warrant; Court: Search Violates Privacy Right, WASH. POST, June 12, 2001, at A1 ("'It means that the Fourth Amendment is going to apply to all the high-tech technology that is rapidly being developed. Big Brother must now pay attention to constitutional principles.'") (quoting Steven R. Shapiro, national legal director of the American Civil Liberties Union); *cf. id.* ("'It is an additional step they have to go through. The Fourth Amendment is important, privacy is important, but this is not a blockbuster case.'") (quoting Kent Scheidegger, legal director of Criminal Justice Legal Foundation); Michelle M. Jochner, *Privacy Versus Cyber-Age Police Investigation: The Fourth Amendment in Flux*, 90 ILL. BAR J. 70 (describing *Kyllo* as a "landmark decision"); *id.* ("The Court's decision in *Kyllo* makes it clear that although technology have evolved, the intent underpinning the Fourth Amendment remains constant."). Two other commentaries have discussed *Kyllo*. *See* Sean D. Thueson, *Fuzzy Shades of Gray: The New "Bright-Line" Rule in Determining When the Use of Technology Constitutes a Search*, 2 WYO. L. REV. 169 (2002); Sarilyn E. Hardee, *Why the United States Supreme Court's Ruling in* Kyllo v. United States *Is Not the Final Word on the Constitutionality of Thermal Imaging*, 24 CAMPBELL L. REV. 53 (2001).

B. Both cases readjusted Fourth Amendment law

Both *Katz* and *Kyllo* also signaled a shift, or readjustment, in Fourth Amendment law. *Katz,* authored by Justice Stewart, explicitly rejected two concepts that previously influenced the shape of search and seizure doctrine. Prior to *Katz,* a judicial finding that the challenged police action invaded a "constitutionally protected area" was necessary to trigger the Amendment's safeguards.[36] In their briefs to the Court, the litigants contested whether a public telephone booth was a constitutionally protected area. Justice Stewart, however, found the debate unhelpful. "[T]his effort to decide whether or not a given 'area,' viewed in the abstract, is 'constitutionally protected' deflects attention from the problem presented by this case."[37] At this point, Justice Stewart wrote the lines that would symbolize the meaning and spirit of *Katz*:

> For the Fourth Amendment protects people, not places. What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.[38]

In addition to dismissing the importance of whether the intrusion compromised a constitutionally protected area, *Katz* also rejected the rule that invocation of Fourth Amendment protection required a physical intrusion or "trespass" by government officials.[39] Justice Stewart acknowledged that the

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[36] *See* 1 LAFAVE, *supra* note 21, § 2.1(a) at 380 (explaining that what the pre-*Katz* cases "added up to, as the Supreme Court was later to put it, was that for there to be a Fourth Amendment search the police must have physically intruded into 'a constitutionally protected area'") (citations and footnote omitted). In *Katz,* Justice Stewart acknowledged this point, although he sought to downplay the determinative weight given in prior cases to the concept of a "constitutionally protected area." *See* Katz v. United States, 389 U.S. 347, 351, n.9 (1967) (explaining that the Court has "never suggested that this concept can serve as a talismanic solution to every Fourth Amendment problem.").

[37] *Katz*, 389 U.S. at 351 (footnote omitted).

[38] *Id* at 351-52 (citations omitted).

[39] *Id.*

Court's previous rulings barred constitutional scrutiny of police intrusions in the absence of a physical penetration because the Amendment "was thought to limit only searches and seizures of tangible property."[40] Justice Stewart, however, explained that the "trespass" rule was no longer viable in light of the Court's more recent rulings that the Amendment covers the seizure of oral statements, even when a police intrusion was not a trespass under local property law. "Once this much is acknowledged, and once it is recognized that the Fourth Amendment protects people—and not simply 'areas'—against unreasonable searches and seizures, it becomes clear that the reach of that Amendment cannot turn upon the presence or absence of a physical intrusion into any given enclosure."[41] Thus, with bold strokes, *Katz* rejected previous understandings that had dictated the reach and meaning of the Fourth Amendment. After *Katz*, the scope of the Amendment would not only be loosened from the ancient niceties of common-law property rules, but the substantive content of the Amendment would derive from thoroughly modern and realistic understandings of the privilege against unreasonable searches and seizures.[42]

Like *Katz*, *Kyllo* also represents a shift, albeit subtle, in the Court's approach to defining what is a "search" under the Amendment. The government contended that the thermal imaging directed at Kyllo's home was not a search because it did not reveal any intimate details of his home.[43] The Court's

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[40] *Id.* at 352-53 (footnote omitted).

[41] *Id.* at 353.

[42] *See id.* at 352 ("No less than an individual in a business office, in a friend's apartment, or in a taxicab, a person in a telephone booth may rely upon the protection of the Fourth Amendment. One who occupies it, shuts the door behind him, and pays the toll that permits him to place a call is surely entitled to assume that the words he utters into the mouthpiece will not be broadcast to the world. To read the Constitution more narrowly is to ignore the vital role that the public telephone has come to play in private communications."). Professor Amsterdam cogently recognized that the crucial question at stake in a case like *Katz* is "a value judgement." Amsterdam, *supra* note 23 at 403 ("The ultimate question, plainly, is a value judgment. It is whether, if the particular form of surveillance practiced by the police is permitted to go unregulated by constitutional restraints, the amount of privacy and freedom remaining to citizens would be diminished to a compass inconsistent with aims of a free and open society.").

[43] *See* Brief for the United States at 22, *Kyllo* (99-8508) ("This Court's deci-

"threshold" cases seemed to support the Government's position. Indeed, since at least 1984, the Court had strongly intimated that police intrusions directed at homes might not trigger constitutional inquiry unless those intrusions interfered with or revealed intimate activities associated with the home. For example, in *Oliver v. United States*,[44] the Court explained that the Amendment's protection of "houses" went beyond merely protecting the physical interior of a home; it also protected the curtilage of the home.[45] Citing the common law, *Oliver* opined that the curtilage "is the area to which extends the intimate activity associated with the 'sanctity of a man's home and the privacies of life,' and therefore has been considered part of the home itself for Fourth Amendment purposes."[46]

United States v. Dunn[47] elevated *Oliver*'s dicta on the meaning of curtilage to law. In *Dunn*, the Court adopted *Oliver*'s definition of curtilage and noted that a "central component of th[e] inquiry [regarding the extent of a home's curtilage is] whether the area harbors the intimate activity associated with the 'sanctity of a man's home and the privacies of life.'"[48] *Dunn* then identified several factors for determining whether a particular area fell within the curtilage of a home.[49] One factor considered "the nature of the uses to which the area is put."[50] When applying this criterion to the facts in *Dunn*, the Court explained that it was "especially significant that the law enforcement officials possessed objective data indicating that the [area] was not being used for intimate activities of the

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sions establish . . . that the Fourth Amendment does not preclude the government from obtaining the assistance of technology to observe an area that is exposed to the public, provided that the technology does not permit the government to detect *private* activities occurring in the private areas.") (emphasis added).

[44] 466 U.S. 170 (1984).

[45] *Oliver*, 466 U.S. at 181 n.12.

[46] *Id.* at 180 (quoting Boyd v. United States, 116 U.S. 616, 630 (1886)).

[47] 480 U.S. 294 (1987).

[48] *Dunn*, 480 U.S. at 300 (quoting *Oliver*, 466 U.S. at 180) (internal quotation marks omitted).

[49] *Id.* at 301.

[50] *Id.* The Court also looked to "the proximity of the area claimed to be curtilage to the home, whether the area is included within an inclosure surrounding the home . . . and the steps taken by the resident to protect the area from observation by people passing by." *Id.*

home."[51]

Oliver and *Dunn* were not the only cases lending support to the government's claim in *Kyllo* that police conduct directed at a home did not trigger constitutional scrutiny unless it revealed intimate details of the home. The Court held in *California v. Ciraolo*[52] that no search occurred when police officers, flying in navigable airspace, observed marijuana growing in a fenced-in backyard.[53] The fact that the activities that the police observed lay within the curtilage did not help Ciraolo.[54] The Court ruled that the flyover was not a search because the surveillance occurred in "a physically nonintrusive manner" and within "public navigable airspace."[55] Although *Ciraolo* ruled that police flyovers do not trigger Fourth Amendment review, the Court left open the possibility that other types of aerial observations might produce a different result.[56] In particular, the Court highlighted the State's concession that "'[a]erial observation of curtilage may become invasive, either due to physical intrusiveness or through modern technology which discloses to the senses those *intimate* associations, objects or activities otherwise imperceptible to police or fellow citizens.'"[57]

Three years after deciding *Ciraolo*, in *Florida v. Riley*[58] the Court ruled that helicopter surveillance of a greenhouse adjacent to a home was not a search.[59] Noting that *Ciraolo* controlled this case, Justice White's plurality opinion explained that "because the sides and roof of his greenhouse were left partially open" and because the observation occurred while the helicopter was in navigable airspace, Riley could not reasonably have expected that the interior of the greenhouse would remain free from police inspection.[60] At the end of his opinion, however, Justice White acknowledged that the helicopter observation did not interfere with the normal use of the greenhouse or other parts of the curtilage and, most importantly, "no intimate details connected with the use of the home or curtilage were observed."[61]

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[51] *Id.* at 302.

[52] 476 U.S. 207 (1986).

[53] *Ciraolo*, 476 U.S. at 215.

[54] In *Oliver* and *Dunn*, the police intrusions did not breach the curtilage.

[55] *Ciraolo*, 476 U.S. at 213.

[56] *Id.* at 215.

[57] *Id.* at 215, n. 3, quoting Brief for Petitioner 14-15 (emphasis added). In *Dow Chem. Co. v. United States*, 476 U.S. 227 (1986), the Court held that aerial photography of an industrial complex did not constitute a search. *Dow Chem. Co.*, 476 U.S. at 234. While acknowledging that the use of "highly sophisticated surveillance equipment not generally available to the public, such as satellite technology, *might* be constitutionally proscribed absent a warrant," the Court stressed that the challenged photos did not reveal "intimate details as to raise constitutional concerns." *Id.* at 238 (emphasis added).

[58] 488 U.S. 445 (1989).

[59] *Riley*, 488 U.S. at 448.

Relying on these cases and others not involving intrusions of homes, the government argued in *Kyllo* that thermal imaging was not a search because it did not "'detect private activities occurring in private areas.'"[62] This argument, however, did not persuade Justice Scalia. According to Scalia, "[t]he Fourth Amendment's protection of the home has never been tied to measurement of the quality or quantity of information obtained."[63] Justice Scalia then stated: "In the home, our cases show, *all* details are intimate details, because the entire area is held safe from prying government eyes."[64] Thus, the information that the thermal imaging device revealed, "how warm—or even how relatively warm—Kyllo was heating his residence," was protected against government snooping.[65]

Therefore, with little fanfare, *Kyllo* turned aside a momentum that had been building in the Court's prior cases.[66] Those cases suggested that unless the challenged police conduct compromised intimate activities of the home, Fourth Amendment review was unavailable.[67] Justice Scalia's opinion signals a readjustment in the Court's thinking on this issue.[68] Just as *Katz* discarded a narrow view of the Fourth Amendment's scope,[69] *Kyllo* also rejected the notion that a police intrusion "must be rather substantial and must reveal specifically certain intimate details" to invoke Fourth Amendment scrutiny.[70] For this reason, Professor LaFave applauds Justice Scalia's opinion

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[60] *Id.* at 448-50.

[61] *Id.* at 452.

[62] Kyllo v. United States, 533 U.S. 27, 37 (2001) (quoting Brief for United States at 22); *see also* Andrew Riggs Dunlap, *Fixing the Fourth Amendment with Trade Secret Law: A Response to* Kyllo v. United States, 90 GEO. L.J. 2175, 2184-85 (2002) (noting cases where the Court suggested that unless government conduct revealed "intimate details" of the home, no search occurred).

[63] *Kyllo*, 533 U.S. at 37.

[64] *Id.*

[65] *Id.* at 38 (footnote omitted). Justice Scalia dismissed the government's reliance on *Ciraolo*'s dictum cautioning against police use of modern technology that exposes "intimate associations, objects or activities otherwise imperceptible to police or fellow citizens." *Id.* at n.5 (quoting *Ciraolo*, 476 U.S. at 215 n.3). In Justice Scalia's view, *Ciraolo*'s "focus in this second-hand dictum was not upon intimacy but upon otherwise-imperceptibility, which is precisely the principle we vindicate today." *Id.* at n. 5.

[66] Justice Scalia asserted that "our cases show, *all* details [of a home] are

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intimate details, because the entire area is held safe from prying government eyes." *Id.* at 37. But *United States v. Karo*, 468 U.S. 705 (1984) and *Arizona v. Hicks*, 480 U.S. 321 (1987), which are cited by Justice Scalia to support his statement, are rather thin columns to support the rule that "*all* details" of a home are constitutionally protected. *Karo* held that monitoring of a beeper constitutes a search when it reveals information regarding the inside of a home that could not have been obtained through visual surveillance. *Karo*, 468 U.S. at 715. Although *Karo*'s holding is consistent with Justice Scalia's statement, before *Kyllo*, the result in *Karo* had never been understood to stand for the proposition that "*all* details" of a home are constitutionally protected. Rather, the result in *Karo* turned on the fact that the beeper device used there helped the government "obtain information that it could not have obtained by observation from outside the curtilage of the house." *Id.* at 715. Similarly, *Hicks* was about limiting the scope of police entries into homes,[66] rather than establishing a rule that "*all* details" of a home are constitutionally protected. *Hicks*, 480 U.S. at 323. The *Hicks* majority, in an opinion by Justice Scalia, first rejected the government's claim that an officer's moving of stereo equipment to reveal its serial number did not constitute a new "search" because it produced no additional invasion of privacy separate from the already lawful presence of the officer, which was justified by an emergency call that a shooting had occurred inside the premises. *Id.* at 325 Justice Scalia explained that "taking action, unrelated to the objectives of the authorized intrusion, which exposed to view concealed portions of the apartment or its contents, did produce a new invasion of respondent's privacy unjustified by the exigent circumstance that validated the entry." *Id.* at 325. He then noted: "A search is a search, even if it happens to disclose nothing but the bottom of a turntable." *Id.* Interestingly, the holdings in *Karo* and *Hicks* did not prevent the Court from finding that the aerial intrusions in *Ciraolo* and *Riley* were not searches despite the fact that the challenged photography revealed details of the curtilage of private homes.

[67] *See supra* notes 51-53, 65-66 and accompanying text.

[68] *See supra* note 66 and accompanying text.

[69] *See* Katz v. United States, 389 U.S. 347, 353 (1967) (noting that while *Olmstead* held that "surveillance without any trespass and without the seizure of any material object fell outside the ambit of the Constitution, we have since departed from the narrow view").

[70] 1 WAYNE R. LAFAVE, SEARCH AND SEIZURE § 2.2, at 77 (3d ed. 1996) (Supp. 2002).

"for foregoing [one of] the various privacy-belittling techniques that have become rather common in efforts to narrow the protections of the *Katz* doctrine."[71]

A second feature of *Kyllo*'s reasoning—the importance of bright-line rules—also indicates a change of direction, albeit a shift that may be temporary, from the Court's most recent case involving the scope of protection afforded private homes. In *Kyllo*, Justice Scalia stated that restricting "the prohibition of thermal imaging to 'intimate details' would not only be wrong in principle; it would be impractical in application, failing to provide 'a workable accommodation between the needs of law enforcement and the interests protected by the Fourth Amendment.'"[72] He then noted the inability of police officers to predict the amount of detail that a particular thermal imaging device will reveal.[73] Justice Scalia also wondered whether the Court was capable of articulating a Fourth Amendment rule that identifies which activities of the home are "'intimate' and which are not."[74] And even if the Court announced such a rule, "no police officer would be able to know *in advance* whether his through-the-wall surveillance picks up 'intimate' details—and thus would be unable to know in advance whether it is constitutional."[75] Accordingly, Justice Scalia concluded that because the Fourth Amendment "draws 'a firm line at the entrance to the house,'"[76] police officers are better served if the line is not "only firm but also bright"—which means "clear specification of those methods of surveillance that require a warrant."[77]

Kyllo's emphasis on the importance of bright-line rules is a notable change of direction from the reasoning of the Court in

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[71] *Id.* at 76.

[72] *Kyllo*, 533 U.S. at 38 (quoting Oliver v. United States, 466 U.S. 170, 181 (1984)).

[73] *See id.* at 38 (noting "there is no necessary connection between the sophistication of the surveillance equipment and the 'intimacy' of the details that it observes—which means that one cannot say (and the police cannot be assured) that use of the relatively crude equipment at issue here will always be lawful").

[74] *Id.* at 39.

[75] *Id.*

[76] *Id.* at 40 (quoting Payton v. New York, 445 U.S. 573, 590 (1980)).

[77] *Kyllo*, 533 U.S. at 40.

Minnesota v. Carter.[78] In *Carter*, a police officer, peering through a gap in the closed blinds of an apartment window, observed three individuals bagging cocaine—the female leaseholder of the premises and two men, Carter and Johns.[79] Police eventually arrested the men outside of the apartment and later learned that the men had entered the apartment for the sole purpose of packaging cocaine, had no prior contact with the premises, and that the men were in the apartment for approximately two-and-one-half hours.[80] The issue confronting the Court was whether Carter and Johns had a legitimate expectation of privacy in their host's home.[81]

Chief Justice Rehnquist's plurality opinion neatly summarized the extant doctrine. "[A]n overnight guest in a home may claim the protection of the Fourth Amendment, but one who is merely present with the consent of the householder may not."[82] The facts in *Carter* were "obviously somewhere in between" the *per se* rules that the Court's prior cases established. The Chief Justice concluded that the men could not invoke the Fourth Amendment's protection because of "the purely commercial nature" of their behavior, their "relatively short period of time [spent] on the premises, and the lack of any previous connection" between the men and their host.[83]

Justice Kennedy wrote a separate concurring opinion providing the fifth vote in *Carter*.[84] Interestingly, Justice Kennedy noted that the "[s]ecurity of the home must be guarded by the law in a world where privacy is diminished by enhanced surveillance and sophisticated communication systems."[85] He also expressed his agreement with the dissenting Justices' view that reasonable expectations of the host "are shared, to some extent, by the guest."[86] For Justice Kennedy, this suggested a general rule: "social guests will have an expectation of privacy in their host's home."[87] That said, however, Justice Kennedy concluded that Carter and Johns could not rely on the Fourth Amendment's protection because they had "nothing more than a fleeting and insubstantial connection" with their host's home.[88] Justice Kennedy saw no reason "to fashion a *per se* rule of home protection, with an automatic right for all in the home to invoke the exclusionary rule, in order to protect homeowners and their guests from unlawful police intrusion."[89]

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[78] 525 U.S. 83 (1998).

[79] *Carter*, 525 U.S. at 85.

[80] *Id.* at 86

[81] *Id.* at 87.

[82] *Id.* at 90.

[83] *Id.* at 91.

[84] *Id.* at 99.

[85] *Id.* at 99 (Kennedy, J., concurring). Despite this professed concern about privacy being "diminished by enhanced surveillance and sophisticated communications systems," Justice Kennedy dissented in *Kyllo*. *Id.*

[86] *Id.* at 102. At the start of his opinion, Justice Kennedy explained that he

Although *Kyllo* and *Carter* both addressed the degree of protection the Fourth Amendment provides for individuals located in a home, *Kyllo*'s stress on the importance of bright-line rules to protect the privacy of the home and to provide guidance for police contrasts sharply with the balancing analysis of *Carter*.[90] Doubtlessly unintended, Justice Scalia's predilection for bright-line rules that protect the home is reminiscent of the *per se* rules that the Warren and Burger Courts established. In cases like *Karo v. United States*,[91] *Steagald v. United States*,[92] *Payton v. New York*,[93] *Mincey v. Arizona*,[94] *Vale v. Louisiana*,[95] *Stoner v. California*,[96] and *Chapman v. United States*,[97] bright-line rules were announced to protect the privacy and security of the home.[98] Countervailing law enforcement interests can usually be found to justify a police intrusion of a home, especially when evidence of criminal con-

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joined the Chief Justice's opinion because "its reasoning is consistent with my view that almost all social guests have a legitimate expectation of privacy, and hence protection against unreasonable searches, in their host's home." *Id.* at 99.

[87] *Id.* at 102.

[88] *Id.* at 102.

[89] *Id.* at 103.

[90] *See supra* notes 82-83 and accompanying text.

[91] 468 U.S. 705 (1984).

[92] 451 U.S. 204 (1981).

[93] 445 U.S. 573 (1980).

[94] 437 U.S. 385 (1978).

[95] 399 U.S. 30 (1970).

[96] 376 U.S. 483 (1964).

[97] 365 U.S. 610 (1961).

[98] Minnesota v. Olson, 495 U.S. 91, 93 (1989), which held that an overnight guest is entitled to rely on the privacy of his host's home, is an example of a bright-line rule protecting homes announced by the Rehnquist Court.

duct is discovered.[99] In the past, the Court developed *per se* rules to pre-empt the *ad hoc* arguments frequently used to compromise Fourth Amendment interests.[100]

Bright-line rules are also meant to provide guidance to the police; balancing models seldom afford such guidance. The reasoning of the Chief Justice and Justice Kennedy in *Carter* illustrate the dangers of balancing. How is an officer to know in advance whether his "Peeping-Tom" observations are directed at a guest or visitor who is entitled to share his host's privacy? Whether a person is entitled to constitutional protection against arbitrary police snooping should not depend on information that is later discovered by the police. Nor should the constitutionality of an officer's snooping turn on the length of a person's visit or whether he stays overnight. "Otherwise, a homeowner's sexual partner would have no expectation of privacy in the home and no standing to object if the police peered through the closed blinds of a bedroom window, unless that sexual partner spent the night."[101] More importantly, the *ad*

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[99] In his dissent in *Kyllo*, Justice Stevens noted the "strong public interest" served by a thermal imager. *See Kyllo*, 533 U.S. at 45 (Stevens, J., dissenting) ("[P]ublic officials should not have to avert their senses or their equipment from detecting emissions in the public domain such as excessive heat, traces of smoke, suspicious odors, odorless gases, airborne particulates, or radioactive emissions, any of which could identify hazards to the community.").

[100] *See, e.g.,* Mincey v. Arizona, 437 U.S. 385, 393 (1978) (noting that the importance of the state's interest in prompt investigation of a murder, but explaining that a similar interest is extant for other serious crimes; "[i]f the warrantless search of a homicide scene is reasonable, why not the warrantless search of the scene of a rape, a robbery, or a burglary? 'No consideration relevant to the Fourth Amendment suggests any point of rational limitation' of such a doctrine.") (quoting Chimel v. California, 395 U.S. 752, 766 (1969)).

[101] Tracey Maclin, *What Can Fourth Amendment Doctrine Learn from Vagueness Doctrine?*, 3 U. PA. J. CONST. L. 398, 434-35 (2001) (footnote omitted). Professor LaFave takes a different view of the impact of *Carter*. According to LaFave:

> *Carter* should not be taken to mean, with regard to a social guest, that if something less than an overnight stay will suffice, the stay must be longer than the [two-and-a-half] hour visit in that case. This is because the Court acknowledged that the situation there fell somewhere between that of the *Olson* overnight guest (who had standing) and one who 'merely' is lawfully present (without standing by virtue of the repudiation of [Jones v. United States, 362 U.S. 257 (1960)]), and *then* held it to be closer to the latter *only* after factoring in the lesser expectation of privacy that

hoc balancing analysis in *Carter* undermines the security of private homes. The result in *Carter*, as Professor Susan Bandes notes "encourages . . . searches of homes that invade the privacy of homeowners, so long as it is the visitor, not the homeowner, who is caught with contraband."[102] In sum, Justice Scalia's decision in *Kyllo* to adopt a bright-line rule protecting "*all* details" of the home, no matter how insignificant the information, calls to mind an earlier judicial attitude about Fourth Amendment rules that affect the home and is a notable change of direction from the Court's most recent ruling involving the protection afforded private homes.

C. *Both cases rest on simple, but persuasive logic*

A final characteristic that *Katz* and *Kyllo* share is that both cases based their conclusions on a simple, but persuasive, logic. In *Katz*, Justice Stewart explained that a person who enters a telephone booth, "shuts the door behind him, and pays the toll that permits him to place a call is surely entitled to assume that the words he utters into the mouthpiece will not be broadcast to the world."[103] A contrary view would "ignore the vital role that the public telephone has come to play in private communication."[104] In *Kyllo*, the crucial factor was that the thermal imaging device enabled the government to discover information about the inside of a home that was otherwise unavailable without a physical intrusion.[105] For Justice Scalia, the legal question in *Kyllo* was straightforward: Should the government be free to gather *any* detail concerning the

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> attends 'property used for commercial purposes.' There is no reason why a much shorter-term social visitor should be deemed to lack standing.

Id. at 5 LAFAVE, *supra* note 70, § 11.3 at 23.

[102] Bandes, *supra* note 25 at 1381 (footnote omitted).

[103] Katz v. United States, 389 U.S. 347, 352 (1967); *see also id.* at 361 (Harlan, J., concurring) (same).

[104] *Id.* Professor Lewis Katz nicely summarizes why *Katz* has been viewed as a "seminal" case. "A seminal case should provide a framework for its later application. However, the seminal quality of *Katz* lies in its understanding of what the [F]ourth [A]mendment is about rather than in the clarity of its rule." Lewis R. Katz, *In Search of a Fourth Amendment for the Twenty-first Century*, 65 IND. L. J. 549, 562 (1990).

[105] *See supra* note 73 and accompanying text.

inside of someone's home without complying with the requirements of the Warrant Clause? In answering this inquiry, Justice Scalia saw a direct link between thermal imaging and the intrusions that writs of assistances and general warrants authorized, which prompted the Framers to adopt the Fourth Amendment.[106] When viewed from this perspective, the answer was clearly "no." A contrary view would compromise "that degree of privacy against government that existed when the Fourth Amendment was adopted."[107]

II. THE LONG-TERM IMPACT OF *KATZ*

The above discussion establishes that *Katz* and *Kyllo* share certain common traits. Whether *Kyllo*'s long-term impact will be similar to the influence of *Katz* is currently unknown. Although *Kyllo*'s influence has yet to be determined, one can still make predictions about its effect on future Fourth Amendment doctrine. However, before considering *Kyllo*'s potency for the future, it may be instructive to recall the influence of *Katz*. The following section demonstrates that *Katz*'s impact on protecting Fourth Amendment liberties, particularly when technological innovations threaten those liberties, has been insignificant because *Katz* itself lacked substance. A lack of substance, however, was not the only factor contributing to *Katz*'s failure to protect Fourth Amendment liberties. The Justices who decided *Katz* could not agree on *Katz*'s meaning. This lack of consensus about a "landmark" case would make it easier for future Justices to dismiss the relevance of *Katz* in subsequent disputes concerning the Amendment's reach. To the extent that *Kyllo* contains similar defects, its capability and strength to protect Fourth Amendment interests against technological advances may prove to be doubtful.

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[106] Kyllo, 533 U.S. at 40 (noting that although the compromise of Kyllo's privacy was insignificant, that fact is unimportant: "we must take the long view, from the original meaning of the Fourth Amendment forward").

[107] *Id.* at 34.

A. Katz*'s Lack of Substance*

As described earlier, the reasoning and holding in *Katz* rested on three factors. First, the Court dismissed the importance of determining whether a telephone booth is a "constitutionally protected area."[108] Second, the Court rejected the "trespass" rule of prior cases.[109] Third, the Court emphasized the practical and vital role that public telephones play in private communications.[110] Taken together, these factors moved the Court to find that "a person in a telephone booth may rely upon the protection of the Fourth Amendment."[111] The factors cited in *Katz* lead to the sensible result that telephone conversations are entitled to constitutional protection.[112] But when these factors are removed from the facts in *Katz*, their usefulness for deciding the scope of the Fourth Amendment's protection in other contexts becomes illusory.

Consider, for example, *Katz*'s rejection of the litigants' efforts to determine whether a telephone booth was a "constitutionally protected area."[113] Justice Stewart asserted that focusing on whether a telephone booth is a constitutionally protected place "deflects attention from the problem presented by the case."[114] He then wrote his famous epigram: "[T]he Fourth Amendment protects people, not places."[115] This statement, while literally true, begs the question.[116] More importantly,

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[108] *Katz*, 389 U.S. at 351.

[109] *Id.* at 352-53.

[110] *Id.* at 359.

[111] *Id.* at 352.

[112] *Id.* at 357.

[113] *Id.* at 351.

[114] *Id.*

[115] *Id.*

[116] *See, e.g.*, Amsterdam, *supra* note 23 at 385 (noting that the formula in *Katz* "begs the question. But I think it begs the question no more or less than any other theory of fourth amendment coverage the Court has used."). *See also* 1 LAFAVE, *supra* note 21, § 2.1(b) at 385. Professor LaFave remarks:

> [I]t can hardly be said that the [*Katz*] Court produced clarity where theretofore there had been uncertainty. If anything, the exact opposite has occurred. The pre-*Katz* rule, though perhaps 'unjust,' was 'a workable tool for the reasoning of the courts.' But the *Katz* rule, which the Court has

asserting that the Amendment protects "people, not places," provides no guidance for determining, in *future cases*, when the Amendment protects people.[117] The emptiness of Justice Stewart's quip undoubtedly prompted Justice Harlan's clarification regarding the Amendment's scope. Justice Harlan noted that simply asserting "the Fourth Amendment protects people, not places" tells us nothing because the crucial question "is what protection it affords to those people."[118] According to Justice Harlan, "the answer to that question [generally] requires reference to a 'place.'"[119] However, if one accepts Justice Harlan's reinterpretation of *Katz*, then, as Professor Sklansky observes, "the most famous words in *Katz* seem drained of most of their content."[120]

As Justice Harlan and others have recognized, *Katz*'s replacement for the concept of a "constitutionally protected ar-

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> since—somewhat inaccurately—stated as the 'reasonable "expectation of privacy"' test, is by comparison 'difficult to apply.' In short, the *Katz* 'opinion offers little to fill the void it has thus created.'

1 LAFAVE, *supra* note 21, at 385 (footnotes omitted).

[117] *See, e.g.,* Clancy, *supra* note 1, at 339 (arguing that the *Katz* analysis has "no textual support in the language of the amendment" and thus "leaves the fluid concept of privacy to the vagaries of shifting Court majorities, which are able to manipulate the concept to either expand or contract the meaning of the word at will") (footnote omitted); Katz, *supra* note 104, at 559-60 ("[Justice Stewart's opinion] freed the [F]ourth [A]mendment from the chains imposed by the property limitation and the requirement of a physical trespass but provided modest guidance for determining the justiciability of an expectation of privacy in other contexts."). *Cf.* Ku, *supra* note 1, at 1346 (arguing that "by failing to provide any real guidance to the privacy value, [*Katz*] did not shut the door to examining [the means used by government agents], and subsequent decisions have taken advantage of this opening, artfully transforming the reasonable expectation of privacy test into a means-oriented analysis") (footnote omitted).

[118] *Katz*, 389 U.S. at 361 (Harlan, J., concurring).

[119] *Id. See also* David A. Harris, *Superman's X-Ray Vision and the Fourth Amendment: The New Gun Detection Technology*, 69 TEMP. L. REV. 1, 18 (1996) (explaining that after *Katz* "Fourth Amendment protection depends not only on how an individual protects his privacy, but where and in what situation he does so").

[120] Sklansky, *supra* note 24 at 158; *cf.* Ric Simmons, *From* Katz *to* Kyllo*: A Blueprint for Adapting the Fourth Amendment to Twenty-First Century Technologies*, 53 HASTINGS L.J. 1303, 1312 (noting that Justice Harlan's reformation of the rule of *Katz* "sits somewhat awkwardly alongside the majority opinion and makes it more difficult to give meaning to the vague 'reasonable expectations of privacy' test).

ea"—asserting that the "Fourth Amendment protects people, not places"—was a constitutional norm without substance. Because it is essentially meaningless, the norm that symbolizes the spirit and meaning of *Katz*, ironically, has proved to be quite ineffective, as a practical matter, in protecting people. *Katz*'s malleability and emptiness made it especially vulnerable in cases involving technological change. For example, within three years of the *Katz* decision, the Court confronted an issue that had divided the Justices in 1952. In *United States v. White*,[121] the Court had to decide whether the testimony of federal officers concerning conversations between the defendant and a government informant, which the officers monitoring the frequency of a radio transmitter that the informant carried overheard, implicated the Fourth Amendment.[122] Like *On Lee*, *White* ruled that the officers' electronic surveillance was not a search. Speaking for a plurality of the Court, Justice White explained the result with a syllogism: If a person assumes the risk that a secret government spy, acting without electronic equipment, might later reveal the contents of a conversation, the risk is the same when the spy simultaneously records and transmits the conversation to a government officer.[123] In both situations, "the risk is his," and the Fourth Amendment provides no protection against government conduct to obtain information in this manner.[124]

For the *White* plurality, *Katz* was irrelevant.[125] "Although *Katz* announced that the Court would no longer be controlled by rigid and antiquated concepts when formulating the scope of the Fourth Amendment, the *White* plurality read *Katz* as having no impact on the secret spy cases"[126] decided before *Katz*. The *White* plurality, without any discussion or analysis of the doctrinal shift announced in *Katz*, reaffirmed prior holdings that authorized unchecked surveillance of private conversations and unbridled invasions of private homes and offices whenever informants are available to gather information for the government. If the "Fourth Amendment protects people, and not places," as *Katz* insisted, then why is the Amendment inapplicable against government efforts to record conversations or infiltrate homes or offices using secret informants?

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[121] 401 U.S. 745 (1971).

[122] *White*, 401 U.S. at 746-47.

[123] *See id.* at 751-52 (plurality opinion).

[124] *Id.* at 752-53.

[125] Justice White distinguished *Katz* this way:

> *Katz* involved no revelation to the Government by a party to conversations with the defendant nor did the Court indicate in any way that a defendant has a justifiable and constitutionally protected expectation that a person with whom he is conversing will not then or later reveal the conversation to the police.

Id. at 749. Put simply, the Fourth Amendment does not cover eavesdropping by the government with the connivance of one of the parties.

> If the Fourth Amendment restrains the discretion of the police to wiretap or 'bug' private conversations [conducted in telephone booths], it is not apparent why that same provision is inapplicable when the police monitor and record private conversations through the use of a secret informant deliberately position[ed] to hear those conversations. After all, a secret informant acts as a 'human bug' for the government.[127]

The result in *White* proved that *Katz* offered no protection against this type of unchecked government electronic surveillance.

Katz's announcement that "the Fourth Amendment protects people, not places," also did not protect people from the unbridled use of electronic surveillance employed in *Smith v. Maryland*.[128] The question *Smith* presented was whether the installation and use of a pen register was a search under the Amendment.[129] The Court ruled that the pen register was not a search. *Smith* distinguished a pen register from wiretapping on several grounds.[130] The crux of the Court's logic, however, can be quickly summarized: The Fourth Amendment is not implicated because a person has no legitimate privacy interest in the telephone numbers he dials. The person assumes the risk that the telephone company will convey the numbers he dials to the government.

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[126] Tracey Maclin, *Informants and the Fourth Amendment*, 74 WASH. U. L. Q. 573, 620-21 (1996) (footnote omitted) [hereinafter Maclin, *Informants*].

[127] Maclin, *Informants*, *supra* note 126, at 625.

[128] 442 U.S. 735 (1979).

[129] The Court explained that a pen register "'is a mechanical device that records the numbers dialed on a telephone by monitoring the electrical impulses caused when the dial on the telephone is released. It does not overhear oral communications and does not indicate whether calls are actually completed.'" *Smith*, 442 U.S. at 736, n.1 (quoting United States v. N.Y. Tel. Co., 434 U.S. 159, 161, n.1 (1977)).

[130] *Smith* distinguished wiretapping from a pen register in the following ways.

The Court was indifferent to the fact that technological innovations granted the government greater and more proficient access to information about a person's private communications.[131] In the Court's view, contemporary telephone equipment, including pen registers, is "merely the modern counterpart of the operator who, in an earlier day, personally completed calls for the subscriber."[132] Noting that a person would have no legitimate privacy interest in the numbers he dialed if an operator processed those calls, the Court was "not inclined to hold that a different constitutional result is required because the telephone company has decided to automate."[133]

Smith did proclaim, unlike the *White* plurality, that *Katz* was its "lodestar" for determining whether government-initiated electronic surveillance triggered Fourth Amendment scrutiny.[134] But the protective shield of *Katz* was just as ineffective in *Smith* as it was in *White*. When *Katz* stated "the Fourth Amendment protects people, not places," criticism of this norm was muted because the majority of the Justices (like the majority of the nation) thought that private telephone conversations should be constitutionally protected. The emptiness of this norm, however, created a vacuum that the Court would have to

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First, unlike a listening device, a pen register "do[es] not acquire the *contents* of communications." *Id.* at 741. Literally speaking, pen registers are not "recording devices" because they do not "'hear sound.'" *Id.* (quoting United States v. N.Y. Tel. Co., 434 U.S. 159, 167 (1977)). Furthermore, unlike listening devices, pen registers do not record "'any communication between the caller and the recipient of the call, [disclose the] identities [of the callers], [or tell] whether the call was even completed.'" *Id.*

[131] In his dissenting opinion, Justice Stewart notes that: "[t]he numbers dialed from a private telephone—although certainly more prosaic than the conversation itself are not without 'content.'" *Id.* at 748 (Stewart, J., dissenting). Pen registers reveal, "the identities of the persons and the places called, and thus reveal the most intimate details of a person's life." *Id.* (Stewart, J., dissenting).

[132] *Id.* at 744.

[133] *Id.* at 745.

[134] *Id.* at 739.

fill in later cases where there was greater controversy about the challenged police practice. As those cases emerged, the Court needed legal theories to support controversial results that divided the Justices. The post-*Katz* Court used the expectations theory[135] and risk analysis to define the scope of the Fourth Amendment. The same assumption of risk theory supporting *White*'s holding supported *Smith*'s holding. As Justice Stewart belatedly recognized, however, "[i]t is simply not enough to say, after *Katz*, that there is no legitimate expectation of privacy in the numbers dialed because the caller assumes the risk that the telephone company will disclose them to the police."[136] Regrettably, Justice Stewart's realization

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[135] *See* Katz v. United States, 389 U.S. 347, 361 (1967) (Harlan, J., concurring) (explaining his view of the rule that has emerged through prior decisions is that "there is a twofold requirement, first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable'"). In *White*, Justice Harlan appeared to recant his endorsement of expectations theory as a tool for measuring the Fourth Amendment's scope. *See*, United States v. White, 401 U.S. 745, 786 (1971) (Harlan, J., dissenting) (explaining that legal analysis in this context must "transcend the search for subjective expectations or legal attribution of assumptions of risk. Our expectations, and the risks we assume, are in large part reflections of laws that translate into rules the customs and values of the past and present."); *see also*, Amsterdam, *supra* note 23, at 384 ("Justice Harlan himself later expressed second thoughts about [expectations theory], and rightly so. An actual, subjective expectation of privacy obviously has no place in a statement of what *Katz* held or in a theory of what the fourth amendment protects. It can neither add to, nor can its absence detract from, an individual's claim to fourth amendment protection.").

[136] *Smith*, 442 U.S. at 747 (Stewart, J., dissenting). Justice Stewart argued that *Smith*'s risk analysis was inconsistent with *Katz*. He also contended that risk analysis was a flawed legal theory because it proved too much. Telephone conversations:

> must be electronically transmitted by telephone company equipment, and may be recorded or overheard by the use of other company equipment. Yet we have squarely held that the user of even a public telephone is entitled 'to assume that the words he utters into the mouthpiece will not be broadcast to the world.'

Id. at 746-47 (Stewart, J., dissenting) (quoting *Katz*, 389 U.S. at 352). Why shouldn't a caller assume the risk that his conversation may be turned over to the government, just as the numbers he dials may be conveyed to the government? People do not assume *that* risk, or assume the risk that our mail may be opened and read by government officers, because the Court has said we do not have to assume those risks. Risk analysis is not based on a neutral principle. We assume only those risks the Court says we must assume. *See* KAMISAR ET AL., *supra* note 18 at came too late.[137] By 1979, *Katz*'s famous words were a meaningless slogan, often cited but lacking principle and influence. Expectations theory and risk analysis replaced *Katz* as the defining methodology for measuring the Fourth Amendment's protection.[138]

The second factor supporting *Katz*'s reasoning and holding adopted the view that "the reach of [the Fourth Amendment] cannot turn upon the presence or absence of a physical intrusion into any given enclosure."[139] Rejection of the "trespass" rule heralded a new model of search and seizure jurisprudence.[140] Common-law property rules would no longer

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380 (citation omitted) (noting that we do not assume the risk that our telephone calls or mail is being monitored because the Court has ruled that the government may not conduct such surveillance).

[137] Interestingly, Justice Stewart had joined the plurality opinion in *White* which, as noted in the text, relied on the assumption of risk theory to support the holding. *See generally White*, 401 U.S. at 745-54 (plurality opinion).

[138] *See* United States v. Miller, 425 U.S. 435 (1976). *Miller* ruled that a government subpoena of bank checks and deposit slips from banks did not constitute a search. The Court explained that the "depositor takes the risk, in revealing his affairs to another, that the information will be conveyed by that person to the Government." *Id.* at 443. The "assumption of risk" rule applies "even if the information is revealed on the assumption that it will be used only for a limited purpose and the confidence placed in third party will not be betrayed." *Id.* For a detailed discussion of the Court's analysis in *Smith*, see Clifford S. Fishman, *Pen Registers and Privacy: Risks, Expectations, and the Nullification of Congressional Intent*, 29 CATH. U. L. REV. 557, 561 (1980) (noting that "[a]lthough the result in *Smith* is supportable under the particular facts of the case, the Court's reasoning poses significant problems of both statutory and constitutional dimensions"); *id.* at 569 (asserting that *Smith*'s "reliance on *Miller* to support an assumption of risk rationale in the context of electronic surveillance is rather tenuous"). Professor Daniel Solove describes the constitutional framework established by risk analysis as the "new *Olmstead*."

> Although we have moved from the *Boyd [v. United States*, 116 U.S. 616 (1886)] and *Olmstead* world of physical papers and places to a new regime based upon expectations or privacy, there is a new *Olmstead*, one that is just as shortsighted and rigid in approach. The Court's new conception of privacy is one of total secrecy. If any information is exposed to the public or if law enforcement officials can view something from any public vantage point, then the Court has refused to recognize a reasonable expectation of privacy.

Daniel J. Solove, *Digital Dossiers and the Dissipation of Fourth Amendment Privacy*, 75 S. CAL. L. REV. 1083, 1133 (2002).

[139] *Katz*, 389 U.S. at 353.

[140] *See, e.g.*, LAFAVE, *supra* note 21, § 2.2 (c) at 418 (describing *Katz*'s disap-

dominate the debate about the scope and meaning of the Fourth Amendment. Without being tethered to archaic rules, the Court was free to conduct a modern and realistic assessment about which police practices should be subject to constitutional scrutiny. But loosening the connection between search and seizure law and common-law rules did not enhance *Katz*'s authority to protect Fourth Amendment interests in future cases. Indeed, besides the outcome in *Katz* itself, rejection of the trespass rule rarely made a difference in search and seizure rulings.

Rejection of the "trespass" rule ignited no real controversy among the Justices in *Katz*.[141] One explanation for this consensus may be that the trespass rule specifically, and common-law property rules generally, no longer exerted influence on search and seizure doctrine. Since at least the 1950's, the persuasive quality of these rules waned. "The validity of the trespass rationale was questionable even at the time [*On Lee*] was rendered" in 1952.[142] Rulings subsequent to *On Lee* further eroded the property-based foundations of Fourth Amendment law.[143] As Justice Harlan explained, search and seizure doc-

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proval of the trespass rule as a "dramatic shift [which] made it quite clear that the earlier [lower court] decisions upholding the use of telescopic devices by reliance upon *Goldman* [*v. United States,* 316 U.S. 129 (1942)] and *Hester* [*v. United States,* 265 U.S. 57 (1924)] could no longer be safely relied upon").

[141] Even Justice Black, the sole dissenter in *Katz*, did not object when the Court jettisoned the trespass rule. *See Katz*, 389 U.S. at 368-69 (Black, J., dissenting) (explaining that the presence or absence of a trespass was not determinative in the pre-*Katz* cases).

[142] *White*, 401 U.S. at 774 (Harlan, J., dissenting); *see also*, Katz, *supra* note 104 at 558 (noting that by 1960, dissatisfaction with the trespass doctrine was being expressed within the Court and by legal academics).

[143] *See, e.g.,* Warden v. Hayden, 387 U.S. 294 (1967). Seven months prior to *Katz*, *Hayden* stated:

> The premise that property interests control the right of the Government to search and seize has been discredited. Searches and seizures may be 'unreasonable' within the Fourth Amendment even though the Government asserts a superior property interest at common law. We have recognized that the principal object of the Fourth Amendment is the protection of privacy rather than property, and have increasingly discarded fictional and procedural barriers rested on property concepts.

Hayden, 387 U.S. at 304 (citing Jones v. United States, 362 U.S. 257, 266 (1960) and Silverman v. United States, 365 U.S. 505, 511 (1961)).

trine immediately prior to *Katz* demonstrated "no tolerance for the old dividing lines resting, as they did, on fiction and common-law distinctions without sound policy justification in the realm of values protected by the Fourth Amendment."[144] Under this view, the *Katz* opinion, rather than initiating a fundamental shift, was merely a final and formal acknowledgement that the trespass rule had outlived its usefulness.[145]

Moreover, the trespass or physical penetration concept was quickly becoming obsolete. Technological change was allowing government officials to obtain information without physical intrusions into constitutionally protected areas. Dog sniffs, airplanes and electronic beepers were a small sample of the types of technological advances that enabled the government to obtain information without physical intrusion. When litigants raised constitutional challenges against these investigative devices, the Court responded as if it had not decided *Katz*. For example, in *United States v. Place*,[146] the Court concluded that exposing personal luggage to a narcotics detection dog was not a "search."[147] *Place* concluded "the canine sniff is *sui generis*."[148] It does not "require opening the luggage" and "discloses only the presence or absence of narcotics, a contraband item."[149]

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[144] *White*, 401 U.S. at 778 (Harlan, J., dissenting).

[145] *Cf.*, *id.* at 780 (Harlan, J., dissenting) ("Viewed in perspective, then, *Katz* added no new dimension to the law. At most it was a formal dispatch of *Olmstead* and the notion that such problems may usefully be resolved in the light of trespass doctrine, and, of course, it freed from speculation what was already evident, that *On Lee* was completely open to question.").

[146] 462 U.S. 696 (1983).

[147] *Place*, 462 U.S. at 707.

[148] *Id.* Not surprisingly, "canine sniffs turned out not to be *sui generis* at all." Harris, *supra* note 119, at 30, n.177. The next year, in *United States v. Jacobsen*, 466 U.S. 109 (1984), the Court employed the logic of *Place* to find that a chemical field test of powdery substance did not constitute a search. Because the chemical test—like the canine sniff—only revealed whether the powder was cocaine or not, no Fourth Amendment interests were triggered. *Jacobsen* 466 U.S. at 123-24. "The [*Jacobsen*] Court also extended the reach of *Place*, by saying that the search not only disclosed a limited *amount* of information, but also that it disclosed only a *type* of information—the presence of absence of cocaine—*in which there could be no legitimate expectation of privacy*." Harris, *supra* note 119, at 31.

[149] *Place*, 462 U.S. at 707. *Place* explained that because there was no physical intrusion, the dog sniff "does not expose noncontraband items that otherwise

The analytical tension between *Place* and *Katz* is manifest. Why does it matter that the dog sniff does not require opening of luggage? After all, *Place* recognized that "a person possesses a privacy interest in the contents of personal luggage that is protected by the Fourth Amendment,"[150] and conceded that "the sniff tells the authorities something about the contents of the luggage, [although] the information . . . is limited."[151] The absence of a physical intrusion does not diminish a person's privacy interest in his luggage, just as the absence of a physical intrusion into a telephone booth did not diminish Katz's interest in the privacy of his telephone conversations. More importantly, *Katz* instructed that Fourth Amendment protection does not turn on the presence or absence of a physical intrusion. Thus, the "manner" of the police intrusion in *Place* should be irrelevant.

Likewise, *California v. Ciraolo*[152] held that naked-eye aerial observation of an individual's backyard did not constitute a search.[153] Writing for a five Justice majority, Chief Justice Burger asserted no search occurred because the police observations "took place within public navigable airspace" in a "physically nonintrusive manner."[154] Again, *Katz*'s impotence was evident. The dissent charged that the Chief Justice had ignored fundamental elements of *Katz*'s reasoning.[155] Rather than ad-

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would remain hidden from public view, as does, for example, an officer's rummaging through the contents of the luggage. Thus, the manner in which information is obtained through this investigative technique is much less intrusive than a typical search." *Id.*

[150] *Id.* at 707 (citing United States v. Chadwick, 433 U.S. 1, 13 (1977)).

[151] *Id.* As Professor Harris has noted, the canine sniff does not simply augment human capabilities.

> Although both man and dog can smell, the dog's nose was not simply a way to enhance what the human at the end of the leash could do. Rather, the canine nose is so much better-more sensitive and more accurate—than its human counterpart that it simply could not be said to replace it.

Harris, *supra* note 119 at 24, n.137.

[152] 476 U.S. 207 (1986).

[153] *Ciraolo*, 476 U.S. at 213-14.

[154] *Id.* at 213.

[155] Justice Powell's dissent in *Ciraolo* complained that the majority was ignoring Justice Harlan's warning that any "decision to construe the Fourth Amend-

dress the obvious tension between his reasoning and *Katz*, the Chief Justice essentially confined the reach of *Katz* to a privilege against warrantless wiretapping.[156] According to the Chief Justice, the concerns of the *Katz* majority and Justice Harlan focused on electronic interception of telephone communications. "One can reasonably doubt that in 1967 [the Justices of *Katz*] considered an aircraft within the category of future 'electronic' developments that could stealthily intrude upon an individual's privacy."[157] Once the Chief Justice disabled *Katz* in this way, it was easy to conclude that the Fourth Amendment does not bar naked eye aerial observation of a person's backyard.

Finally, the result and reasoning of *United States v. Knotts*[158] reveals the insignificance of *Katz*'s proclamation that the Fourth Amendment's reach "cannot turn upon the presence of absence of a physical intrusion into any given enclosure."[159] *Knotts* was the Court's first "beeper" case.[160] Law

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ment as proscribing only physical intrusions by police onto private property 'is, in the present day, bad physics as well as bad law, for reasonable expectations of privacy may be defeated by electronic as well as physical invasion.'" *Id.* at 215-16 (Powell, J., dissenting) (quoting *Katz*, 389 U.S. at 362 (Harlan, J., concurring)). Justice Powell also noted that the *Ciraolo* majority's reliance on the fact that the flyover was conducted in a physically nonintrusive manner directly contradicted *Katz*.

> Reliance on the *manner* of surveillance is directly contrary to the standard of *Katz*, which identifies a constitutionally protected privacy right by focusing on the interests of the individual and of a free society. Since *Katz*, we have consistently held that the presence or absence of physical trespass by police is constitutionally irrelevant to the question whether society is prepared to recognize an asserted privacy interest as reasonable.

Id. at 223 (Powell, J., dissenting) (citation omitted).

[156] *See id.* at 214.

[157] *Id.* at 215.

[158] 460 U.S. 276 (1983).

[159] *Katz*, 389 U.S. at 353.

[160] The Court described the "beeper" as "a radio transmitter, usually battery operated, which emits periodic signals that can be picked up by a radio receiver." *Knotts*, 460 U.S. at 277. The Court's second beeper case was *Karo v. United States*, 468 U.S. 705 (1984). For a comprehensive and informative analysis of *Knotts* and *Karo*, see Clifford S. Fishman, *Electronic Tracking Devices and the Fourth Amendment*: Knotts, Karo, *and the Questions Still Unanswered*, 34 CATH. U. L. REV. 277 (1985); Melvin Gutterman, *A Formulation of the Value and Means*

enforcement officers installed a beeper in a drum of chloroform that one of the defendants purchased in Minnesota. Visual and electronic surveillance enabled officers to monitor the whereabouts of the drum as it traveled from Minnesota to Wisconsin. The officers eventually discovered that the beeper signal was stationary and situated near a secluded cabin. A subsequent search of the cabin pursuant to a warrant, based in part on the information the officers had obtained while monitoring the beeper, disclosed a drug laboratory. The issue in *Knotts* was whether the monitoring was a search. Relying upon the lesser expectation of privacy associated with cars, *Knotts* first stated that a "person traveling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place to another."[161]

The Court then addressed whether the use of electronic detection equipment triggered Fourth Amendment interests. As in the other post-*Katz* cases that posed conflicts between technology and Fourth Amendment rights, the *Knotts* Court did not see *Katz*'s reasoning as placing any constitutional restraints on police use of beepers. In fact, *Knotts's* logic proceeded as if the Court had never heard of *Katz*. According to then-Justice Rehnquist, the author of *Knotts*, "[n]othing in the Fourth Amendment prohibited the police from augmenting the sensory faculties bestowed upon them at birth with such enhancement as science and technology afforded them in this case."[162] This statement, however, contradicts *Katz* itself.[163]

Under Justice Rehnquist's reasoning, the Fourth Amend-

Models of the Fourth Amendment in the Age of Technologically Enhanced Surveillance, 39 SYRACUSE L. REV. 647, 699-707 (1988).

[161] *Knotts,* 460 U.S. at 281.

[162] *Id.* at 282.

[163] *See id.* at 288 (Stevens, J., concurring). In *Knotts*, Justice Stevens stated that the electronic augmentation "was unobjectionable, [but] it by no means follows that the use of electronic detection techniques does not implicate especially sensitive concerns." *Id.* Professor Fishman, who generally supports the result in *Knotts*, agrees with Justice Stevens' concern that sense-enhancement equipment raise especially sensitive issues. Fishman, *supra* note 160, at 323. But Professor Fishman also believes that the *Knotts* majority was aware of the potential dangers posed by technological enhancement, and thus wrote a narrow opinion that authorized only the specific surveillance at issue in that case. Fishman, *supra* note 160, at 323.

ment provides no protection against electronic or technological devices that enhance human senses, even when electronic surveillance is indispensable to the government's ability to gather information. Because the officers in *Knotts* were *unable* to maintain visual surveillance of the drum as it traveled from Minnesota to Wisconsin, the beeper allowed them to locate the chloroform "when they would not have been able to do so had they relied solely on their naked eyes."[164] Justice Rehnquist, however, concluded that "scientific enhancement of this sort raises no constitutional issues which visual surveillance would not also raise."[165] In other words, because an officer in a car (or in a helicopter)[166] theoretically could have maintained visual observation of the drum as it traveled across the country without triggering constitutional protection, no constitutional concerns are raised if that officer utilizes electronic equipment to accomplish the same task.

In a technologically advanced society, acceptance of Justice Rehnquist's rationale in *Knotts*—equating electronic surveillance with what police might theoretically accomplish with naked eye monitoring—means that the Fourth Amendment will protect very little.[167] In the theoretical world, one can always imagine methods in which the police are able to watch, listen, or even smell, the activities of a suspect in order to detect useful information. In the real world, however, police investigative methods are subject to financial, personnel and political restraints. The scope of the Fourth Amendment should not be measured by a judge's ability (or inability) to conjure hypothetical scenarios in which an individual's activities are monitored by police who are able to "augment[] the sensory faculties bestowed upon them at birth with such enhancement as science and technology" permits.[168] Otherwise, very few human activities will be beyond the government's surveillance capabilities.

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[164] *Knotts*, 460 U.S. at 285. *Cf.* Fishman, *supra* note 160, at 324, n.194 (acknowledging that the police did not learn of the defendant's destination by visual surveillance).

[165] *Knotts*, 460 U.S. at 285.

[166] At one point in their surveillance of the defendant's automobile, the defendant took evasive action and the officers ended their visual surveillance. "At about the same time officers lost the signal from the beeper, but with the assistance of a monitoring device located in a helicopter the approximate location of the signal was picked up again about one hour later." *Knotts*, 460 U.S. at 278.

[167] Professor LaFave's reaction to *Knotts* has been more polite. "It is this assumed equivalence between mere 'visual surveillance' and 'scientific enhancement' in *Knotts* which is troublesome." LAFAVE, *supra* note 21, §2.7(e) at 645. Professor LaFave properly notes what Justice Rehnquist refused to admit: "The use of an electronic tracking device permits a much more extended and thorough surveillance of an individual than would otherwise be possible." LAFAVE, *supra* note 21, §2.7(e) at 645. *Cf.* Ku, *supra* note 1, at 1348 (noting that the practical impact of *Knotts* allows "government to monitor any individual outside of the home twenty-four hours a day without any discussion of how that monitoring might affect the individual or what that surveillance might do to the relationship between government and individual") (footnote omitted).

The leeway given the police under *Knotts*'s reasoning is illustrated by applying *Knotts*'s rationale to a "hypothetical" *Katz* case. Under *Knotts*'s logic, the result in *Katz* is uncertain.[169] Conceivably, lip-reading FBI agents could watch and transcribe what they saw as Katz spoke in a glass enclosed phone booth. If Katz became aware of the agents' presence and covered his lips, presumably, under the analysis of *Knotts*, the agents could turn on a wiretap to augment their sensory faculties without triggering Fourth Amendment scrutiny. Just as the officers in *Knotts* used electronic equipment—without triggering constitutional safeguards—to discover the location of the chloroform "when they would not have been able to do so had they relied solely on their naked eyes,"[170] lip-reading FBI agents could have also used electronic surveillance to ascertain Katz's communications when they "would not have been able to do so had they relied solely on their naked eyes."[171] In either case, "[n]othing in the Fourth Amendment prohibited the police [or FBI] from augmenting the sensory faculties bestowed upon them at birth with such enhancement as science and technology afford[s]."[172] As Justice Rehnquist suggested in *Knotts*, "scientific enhancement of this sort raises no constitutional issues which visual surveillance would not also raise."[173] At bottom, *Knotts*'s reasoning raises doubts about the protection that *Katz* provided.[174]

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[168] *Knotts*, 460 U.S. at 282.

[169] *Cf.* 1 LAFAVE, *supra* note 21, § 2.7(e) at 646, n.114 ("[A] *Smith-Knotts* type of analysis could well have produced the result that Katz lacked an expectation of privacy because what he said could have been determined by a lip reader some distance away or by a hypothetical bystander immediately adjacent to the booth.").

[170] *Knotts*, 460 U.S. at 285.

[171] *Id. See also* JOSHUA DRESSLER & GEORGE C. THOMAS III, CRIMINAL PROCEDURE: PRINCIPLES, POLICIES AND PERSPECTIVES 88 (1999) (asking whether the result in *Katz* would be the same if FBI agents "had positioned a lip reader immediately outside the telephone booth who observed Katz's lips and recorded his words on paper").

As in *Smith v. Maryland*, *Place* and *Ciraolo*, the reasoning of *Knotts* shows that *Katz*'s rejection of the trespass rule has had little impact on subsequent search and seizure cases involving technological and scientific innovations. Before it was finally overruled, the trespass rule had lost its influence among the Justices. Even if *Katz* had not reversed the trespass rule, law enforcement investigative methods, with the aid of technology, were advancing at such a rapid pace that the government could obtain various types of information without a physical intrusion into a constitutionally protected area. Thus, *Katz*'s proclamation on this point was meaningless, and the Court's later decisions would show that *Katz*'s reasoning would matter little when police utilized other types of technological tools to gather information.

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[172] *Knotts*, 460 U.S. at 282.

[173] *Id.* at 285.

[174] Professor Fishman does not agree with this criticism of *Knotts*. *See* Fishman, *supra* note 160, at 325. He notes:

> Surveillance of one's location and surveillance of one's words differ, not merely in degree, but in kind. Under most circumstances, a person's location and travel simply are not 'private,' and surveillance, though potentially offensive, does not intrude as deeply or as dangerously into privacy and individual liberty as does surreptitious surveillance of what one says to friends, relatives and other confidants. Thus, it is not at all inconsistent for the Court to have held that electronic surveillance of communications is a search subject to Fourth Amendment protection, while also holding that electronic surveillance of public travel is not.

Fishman, *supra* note 160, at 325 (footnote omitted). While reasonable minds might agree that the "location" surveillance in *Knotts* is not as intrusive as the communication surveillance in *Katz*, my criticism of *Knotts* is not focused on the *degree* or intrusiveness of the surveillance involved in that case. Rather, my point is to highlight the contrasting analytical methods between *Knotts* and *Katz*. As noted in the text, *Knotts*'s analysis gives the police enormous latitude to monitor the activities of individuals. In some cases, the surveillance will be quite intrusive, as in the example of the lip-reading FBI agents who augment their sensory faculties with electronic equipment. In other cases, the surveillance may be insignificant, as Justice Stevens believed to be the case in *Kyllo*. *See* Kyllo v. United States, 533 U.S. 27, 43 (2001) (Stevens, J., dissenting) (noting that "the ordinary use of the senses might enable a neighbor or passerby to notice the heat emanating from a building"); *Kyllo*, 533 U.S. at 45 (arguing that police "should not have to avert their senses or their [sense-enhancing] equipment from detecting emissions in the public domain," particularly when "the countervailing privacy interest is at best trivial"). In a third group of cases, reasonable minds might disagree about the intrusiveness involved when government officers are free to augment their sensory faculties with enhancement by scientific and technological devices. *Compare Smith v. Maryland*, 442 U.S. 735, 741 (opinion of Blackmun, J.) *with Smith*, 422 U.S. at 746-48 (opinion of Stewart, J., dissenting). In sum, the problem with the Court's analysis in *Knotts* is that it proves too much. Under *Knotts*'s logic, the Fourth Amendment will be inapplicable if the government can convince a judge that the information revealed by the technological or scientific intrusion *could have* been detected by officers combining sense-enhancing equipment with their ordinary human senses.

The third and final factor that *Katz* emphasized was that "[o]ne who occupies [a phone booth], shuts the door behind him, and pays the toll that permits him to place a call is surely entitled to assume that the words he utters into the mouthpiece will not be broadcast to the world."[175] *Katz* explained that the warrantless wiretap violated "the privacy upon which [Katz] justifiably relied while using the telephone booth and thus constituted a 'search and seizure' within the meaning of the Fourth Amendment."[176]

This aspect of *Katz* is nearly impossible to administer. As Professor LaFave comments, the "expectation" formula of *Katz* does not produce "clarity where theretofore there had been uncertainty. If anything, the exact opposite has occurred."[177] The rest of the *Katz* opinion, as the above discussion demonstrates, provides scant guidance on explaining when other individuals can "justifiably rel[y]" on the Fourth Amendment to protect them from warrantless government surveillance.[178] In sum, because it lacks any type of principled norm, the expectations test, like the other two factors that *Katz* emphasized, does not provide a substantive model or neutral principle that protects Fourth Amendment liberties.

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[175] Katz v. United States, 389 U.S. 347, 352 (1967).

[176] *Id.* at 353.

[177] 1 LAFAVE, *supra* note 21, § 2.1(b) at 385.

[178] *See supra* note 174 and accompanying text; *see also, Kyllo*, 533 U.S. at 34 (noting that *Katz*'s expectations test "has often been criticized as circular, and hence subjective and unpredictable") (citations omitted); LAFAVE, *supra* note 21, § 2.1(b) at 386 (explaining that "[a]lthough *Katz* unquestionably expands the coverage of the Fourth Amendment, even now—despite the intervening years since *Katz* was handed down—it is impossible to state with precision the degree of this expansion"); Gutterman, *supra* note 160, at 665 (noting that "[g]overnment conduct could be insulated from [constitutional] review when the precautions taken

B. The Justices Themselves Could Not Agree On The Meaning of Katz

Because the three factors critical to the result in *Katz* were meaningless or insignificant, it is not surprising that *Katz* has been ineffective in protecting Fourth Amendment interests in cases not involving wiretapping or electronic bugging of private conversations. But the emptiness of these factors was not the only problem with *Katz*. Another flaw in *Katz*, although not immediately apparent in the Court's opinion, was the fact that the Justices who joined the result in *Katz* could not agree on its meaning. The inability of the Justices who decided *Katz* to agree on the scope and impact of their own decision diminished any expectation that *Katz* could have a lasting impact on Fourth Amendment liberties. Indeed, the discord over *Katz*, when combined with the emptiness of its legal framework, only increased the chances that future Justices would see *Katz* as a narrow precedent regarding the Fourth Amendment's scope in a scientific and technologically advanced society.

Although few would realize the point until much later, the scope of *Katz*'s holding was in doubt on the day the Court rendered its decision. In his concurring opinion, Justice White asserted that *Katz* left undisturbed a line of cases dealing with informants and wired spies.[179] According to Justice White, when a person speaks to another, the speaker "takes all the risks ordinarily inherent in so doing, including the risk that the man to whom he speaks will make public what he has

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were not weighted sufficiently to earn privacy. The *Katz* promise had sowed its own seeds of destruction.") (footnote omitted); *cf.* JEFFREY ROSEN, THE UNWANTED GAZE: THE DESTRUCTION OF PRIVACY IN AMERICA 63 (Random House 2000) ("[T]he real problem with the Supreme Court's test for invasions of privacy is not empirical but conceptual. In many cases, people have an objectively valid expectation of privacy that the Court, by judicial fiat, has deemed unjustifiable.").

[179] *Katz*, 389 U.S. at 363, n.* (White, J., concurring).

heard."[180] The Fourth Amendment affords no protection against "unreliable (or law-abiding) associates."[181] A sensible extension of this rule, according to Justice White, leads to the conclusion that a speaker also assumes the risk "that his hearer, free to memorize what he hears for later verbatim repetitions, is instead recording it or transmitting it to another."[182] *Katz*, on the other hand, dealt with "an entirely different situation" because Katz attempted to exclude uninvited listeners and "spoke under circumstances in which a reasonable person would assume that uninvited ears were not listening."[183]

Justice White's comments sought to bolster the "assumption of risk" analysis that supported *On Lee*. When *Katz* was decided, no member of the *Katz* majority challenged Justice White's interpretation of *Katz*'s holding. Four years later, however, an influential member of the *Katz* majority challenged Justice White's understanding of *Katz*'s impact on the wired spy cases. Justice Harlan, the author of what later became known as the "*Katz* analysis"[184] or "*Katz* test,"[185] disputed Justice White's interpretation of *Katz* in *United States v. White*.[186] On this occasion, however, Justice White's views on *Katz*'s meaning would prevail over the views of Justice Harlan.

White reaffirmed *On Lee*'s holding that governmental use of a wired spy to record the conversations of an individual is not a search under the Fourth Amendment. As noted earlier, Justice White's plurality opinion in *White* relied upon the assumption of risk theory to explain why an individual has no constitutionally protected interests against government use of wired informants. Not surprisingly, Justice White read *Katz*'s holding, as he did in his concurring opinion in *Katz*, as not affecting the rationale supporting *On Lee* or *Lopez*.[187] In contrast, Justice Harlan's dissent in *White* argued that subsequent cases had eroded the "doctrinal foundations" of *On Lee*. According to Justice Harlan, *Katz*, in combination with other rulings decided in the 1960's, not only expunged the property-law doctrine that previously controlled the results in search and seizure cases, it also cast serious doubt on the continuing validity of cases like *On Lee* and *Lopez*.[188] The reasoning in *Katz*, following closely on the heels of *Berger*, signaled a heightened judicial awareness of the dangers that technology posed to individual privacy. Indeed, even without *Katz*, the Court had already changed direction on the constitutionality of electronic surveillance. Specifically, Justice Harlan noted that *Berger* "expressed concern about scientific developments that have put within the reach of the Government the private communication of 'anyone in almost any given situation,' [and] it left no doubt that, as a general principle, electronic eavesdropping was an invasion of privacy and that the Fourth Amendment prohibited unsupervised 'bugging.'"[189] In Justice Harlan's view, *Katz* was simply the concluding chapter of the Court's new edition on the meaning of the Fourth Amendment.

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[180] *Id.* (White, J., concurring).

[181] *Id.*

[182] *Id.*

[183] *Id.*

[184] Smith v. Maryland, 442 U.S. 735, 741 (1979) (referring to Justice Harlan's concurrence in *Katz* which established a two-part test for determining when a "search" occurred, as "the *Katz* analysis").

[185] Minnesota v. Carter, 525 U.S. 83, 97 (1998) (Scalia, J., concurring) (commenting on "the *Katz* test (which has come to mean the test enunciated by Justice Harlan's separate concurrence in *Katz*)").

[186] 401 U.S. 745 (1971).

Justices White and Harlan not only proffered different views on *Katz*'s specific holding, they also differed on *Katz*'s impact on Fourth Amendment theory. For Justice White, *Katz*'s impact was limited to overruling the trespass rule. *Katz* did not affect the assumption of risk theory of prior cases, nor did it represent a shift in judicial analysis in determining the Fourth Amendment's reach.[190] Justice Harlan, on the other hand, questioned the compatibility of "risk analysis" and "expectations" theory with the Court's contemporary approach to defining the Fourth Amendment's reach. Although his opinions in *Lopez* and *Katz* were crucial to the development of each of these legal theories, Justice Harlan now believed that risk analysis and expectations theory was neither consistent with the holding of *Katz* nor compatible with the central purpose of the Amendment.[191] Justice Harlan's comments seem to recognize that the analysis of *Katz*—relying as it does on the individual's expectations—was an inadequate model for defining the Fourth Amendment's reach in an age of technological innovation. For Harlan, merely describing the risks a person assumes or subjective expectations he holds was a flawed model for identifying the Fourth Amendment's reach. The "critical question" was whether the Court "should impose on our citizens the risks of the electronic listener or observer without at least the protection of a warrant requirement."[192] Unlike Justice White, who thought that a traditional "reasonableness" model was capable of assessing the constitutionality of electronic surveillance, Justice Harlan appeared to be saying that the Court must go further than simply asking what constitutes reasonable police conduct. Instead, the Justices must examine "the realm of values protected by the Fourth Amendment."[193]

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[187] Justice White distinguished *Katz* by explaining that:

> *Katz* involved no revelation to the Government by a party to conversations with the defendant nor did the Court indicate in any way that a defendant has a justifiable and constitutionally protected expectation that person with whom he is conversing will not then or later reveal the conversation to the police."

White, 401 U.S. at 749 (plurality opinion).

[188] *Id.* at 776-80 (Harlan, J., dissenting).

[189] *Id.* at 779 (Harlan, J., dissenting) (quoting Berger v. New York, 388 U.S. 41, 47 (1967)).

[190] Justice White saw no constitutional difference between wired and unwired

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spies.

> Given the possibility or probability that one of his colleagues is cooperating with the police, it is only speculation to assert that the defendant's utterances would be substantially different or his sense of security any less if he also thought it possible that the suspected colleague is wired for sound.

White, 401 U.S. at 752 (plurality opinion). According to Justice White, government use of wired and unwired informants "is ruled by fluid concepts of 'reasonableness.'" *Id.* at 753 (plurality opinion).

[191] *See id.* at 786 (Harlan, J., dissenting).

[192] *Id.*

[193] *Id.* at 778; *see also id.* at 786-87 (arguing that the Court must assess "the nature of a particular [police] practice and the likely extent of its impact on the individual's sense of security balanced against the utility of the conduct as a technique of law enforcement. For those more extensive intrusions that significantly jeopardize the sense of security which is the paramount concern of Fourth Amendment liberties, I am of the view that more than self-restraint by law enforcement officials is required and at the least warrants should be necessary.")

A second illustration of the Court's internal discord over the meaning of *Katz* occurred in the term following *Katz*. In *Desist v. United States*,[194] the Court had to decide whether *Katz*'s holding should be given retrospective application. When *Desist* was decided, one of the criteria for determining whether a new constitutional ruling would be given retroactive affect focused on "the extent of the reliance by law enforcement authorities on the old standards."[195] With this concern in mind, the defendants in *Desist* argued that *Katz* "merely confirmed the previous demise of obsolete decisions enunciating the distinction between 'trespassory' searches and those in which there was no physical penetration of the protected premises."[196] The *Desist* Court, however, concluded that this argument "misconstrues our opinion in *Katz*."[197] According to Justice Stewart, the author of *Desist*, on the day the Court decided *Katz*, "the assumption persisted that electronic surveillance did not offend the Constitution unless there was an 'actual intrusion into a constitutionally protected area.'"[198] Justice Stewart conceded that decisions which preceded *Katz* "may have reflected growing dissatisfaction with the traditional tests of the constitutional validity of electronic surveillance," but he noted that the Court had never overruled those tests.[199] Thus, while the result in *Katz* "may have been foreshadowed, it was a clear break with the past."[200] Accordingly, *Desist* ruled that *Katz* would have only prospective application.

This understanding of *Katz* baffled Justice Fortas, who had joined Justice Stewart's majority opinion in *Katz* itself. Justice

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(citations omitted).

[194] 394 U.S. 244 (1969).

[195] *Desist*, 394 U.S. at 249 (quoting Stovall v. Denno, 388 U.S. 293, 297 (1967)). The other two criteria were: "the purpose to be served by the new standards" and "the effect on the administration of justice of a retroactive application of the new standards." *Id.* The legal standards for retroactive application of Supreme Court precedents have changed since *Desist* was decided. *See* KAMISAR ET AL, *supra* note 18, at 41-47.

[196] *Desist*, 394 U.S. at 247 (citations omitted).

[197] *Id.*

[198] *Id.* at 248.

[199] *Id.*

[200] *Id.*

Fortas was certain that the trespass rule was dead long before the *Katz* decision.[201] But another aspect of the Court's failure to apply *Katz* retrospectively troubled Justice Fortas. He noted that the "vitality of our Constitution depends upon conceptual faithfulness and not merely decisional obedience" that law enforcement officials and lower courts afford to the Court's precedents.[202] By giving *Katz* only prospective application, the *Desist* Court sent two related messages to police officials and lower court judges. One message encouraged police officials "who honor the Constitution's mandate only where acceptable to them or compelled by the precise and inescapable specifics of a decision of this Court."[203] The second message that *Desist* sent was more pointed. Prospective application of *Katz* awarded

> dunce caps to those law enforcement officers, courts, and public officials who do not merely stand by until an inevitable decree issues from this Court, specifically articulating that which is clearly immanent in the fulfillment of the Constitution, but who generously apply the mandates of the Constitution as the developing case law elucidates them.[204]

Justice Fortas's comments on the importance of "conceptual faithfulness" to Supreme Court precedents help to identify a basic problem with *Katz*. Justice Fortas's dissent in *Desist* was a veiled criticism of law enforcement officers and judges who took a narrow view of the Court's pre-*Katz* cases. Some of the conservative Justices of the Burger and Rehnquist Courts have encountered similar criticism for their application of *Katz*.[205]

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[201] Using somewhat colorful language, Justice Fortas stated:

> *Katz* is not responsible for killing *Olmstead*. Prior cases had left the physical-trespass requirement of *Olmstead* virtually lifeless and merely awaiting the death certificate that *Katz* gave it. They demonstrated to all who were willing to receive the message that *Olmstead* would not shield eavesdropping because it took place outside the physical property line.

Desist, 394 U.S. at 275 (Fortas, J., dissenting) (citations omitted).

[202] *Id.* at 277.

[203] *Id.*

[204] *Id.*

[205] *See, e.g.,* Minnesota v. Carter, 525 U.S. 83, 110-11 (1998) (Ginsburg, J., dissenting) ("The Court's decision in this case veers sharply from the path marked in *Katz*."); Florida v. Riley, 488 U.S. 445, 456 (1989) (Brennan, J., dissenting)

But before police officers, lower court judges, and even Supreme Court Justices can be expected to honor the "conceptual faithfulness" of a Court ruling, they have to know what that ruling requires of them. The problem with *Katz* is that it was so lacking in substance and subject to judicial manipulation that it could mean anything to anyone.

The debate between Justices White and Harlan in *White* and Justices Stewart and Fortas in *Desist* illustrate the problem that occurs when the Justices who decide a "landmark" case like *Katz* disagree among themselves. For example, when the Justices cannot agree whether a case fundamentally altered the "rules of the game" regarding the constitutionality of electronic surveillance,[206] that case is an unlikely protector of civil liberties in future cases involving technological and scientific innovations that threaten Fourth Amendment rights. Similarly, if within a year's time, the Justices who announce a ruling that many legal scholars characterize as a revolutionary alteration of the protection provided by the Fourth Amendment are deeply divided over whether that ruling "was a clear break with the past," then that ruling should not be expected to generate consensus among future Justices regarding its meaning in other constitutional contexts. Despite the apparent consensus among

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("The opinion for a plurality of the Court reads almost as if [*Katz*] had never been decided."); *id.* at 457 (plurality's position that helicopter surveillance of a backyard is not a search "ignores the very essence of *Katz*"); California v. Ciraolo, 476 U.S. 207, 216 (1985) (Powell, J., dissenting) (asserting that the Court "departs significantly from the standard developed in *Katz*"); Oliver v. United States, 466 U.S. 170, 188 (1984) (Marshall, J., dissenting) ("The Court's contention that, because a field is not a house or effect, it is not covered by the Fourth Amendment is inconsistent with th[e] [*Katz*] line of cases and with the understanding of the nature of constitutional adjudication from which it derives.") (footnote omitted).

[206] *Compare* United States v. White, 401 U.S. 745, 750 (1971) (plurality opinion of White, J.) ("We see no indication in *Katz* that the Court meant to disturb [the "risk analysis" theory] or to disturb the result reached in the *On Lee* case, nor are we now inclined to overturn this view of the Fourth Amendment.") (footnote omitted), *with White*, 401 U.S. at 780 (opinion of Harlan, J., dissenting) (stating that *Katz* "added no new dimension to the law. At most it was a formal dispatch of *Olmstead* and the notion that such problems may usefully be resolved in the light of trespass doctrine, and, of course, it freed from speculation what was already evident, that *On Lee* was completely open to question.").

the Justices when they decided *Katz*, it soon became obvious that the same Justices who participated in the *Katz* decision could not agree on fundamental aspects of that ruling. When this lack of consensus over the meaning of *Katz* is combined with the emptiness of the legal norms that *Katz* announced, it is not surprising to find that *Katz* has been a poor guardian of Fourth Amendment rights.

III. WHAT IMPACT WILL *KYLLO* HAVE?

A. Kyllo's *Impact on Earlier Cases Limiting the Scope of the Fourth Amendment*

The above discussion described the similarities of *Katz* and *Kyllo*, and argued that *Katz* has been a weak protector of Fourth Amendment rights. *Kyllo*'s impact on search and seizure interests, of course, is uncertain at this point. I suspect, however, that *Kyllo*, like *Katz*, is unlikely to prevent the use of technology to monitor and reveal information helpful to law enforcement officials. One reason why *Kyllo*'s impact may be blunted is because the Court may be unwilling to follow the implications of *Kyllo*'s holding in future cases. Consider, for example, a couple of precedents that seem undermined by *Kyllo*'s logic.

When explaining why thermal imaging constituted a search, Justice Scalia seemed annoyed with Justice Stevens's numerous statements that thermal imaging did not reveal information regarding the interior of the home. In Scalia's view, "a thermal imager reveals the relative heat of various rooms in the home."[207] Although that information was not "particularly private or important," there was no basis for concluding it is not "information regarding the interior of the home."[208] Justice Scalia also curtly dismissed Justice Stevens's comparison of thermal imagining to what a passerby might be able to observe by using ordinary human senses.[209]

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[207] Kyllo v. United States, 533 U.S. 27, 35, n.2 (2001).

[208] *Kyllo*, 533 U.S. at 35 n.2.

[209] According to Justice Stevens, "any member of the public might notice that one part of a house is warmer than another part or a nearby building if, for example, rainwater evaporates or snow melts at different rates across its surfac-

Justice Scalia noted that the dissent's comparison was "quite irrelevant" because "[t]he fact that equivalent information could sometimes be obtained by other means does not make lawful the use of means that violate the Fourth Amendment."[210]

Justice Scalia's conclusion that thermal imaging is a search is more convincing than Justice Stevens's contrary judgment. But if Justice Scalia is correct to say that thermal imaging is a search because it reveals information regarding the interior of the home, why isn't a police pen register—which also reveals information regarding the interior of a home, to wit: the telephone numbers dialed-a search? As noted earlier, *Smith v. Maryland* held that a pen register was not a search.[211] One might try to distinguish *Smith* by arguing that a pen register does not involve a police intrusion *into* the home, but a thermal imager does not invade the home either. Both the government and Justice Stevens emphasized that because a thermal imager only detects heat that radiates from the external surface of a home, it did not trigger Fourth Amendment protection, a point that Justice Scalia did not contest.[212]

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es." *Id.* at 43 (Stevens, J., dissenting). Justice Stevens's logic is reminiscent of Chief Justice Burger's analysis in *Ciraolo*. In *Ciraolo*, Chief Justice Burger concluded that police use of an airplane to observe the defendant's backyard curtilage was not a search because "[a]ny member of the public flying in this airspace who glanced down could have seen everything that these officers observed." Ciraolo v. California, 476 U.S. 207, 213-14 (1985).

[210] *Kyllo*, 533 U.S. at 35, n.2. Interestingly, Justice Scalia's rebuttal to Justice Stevens's argument sounded more like Anthony Amsterdam than Warren Burger. In his seminal article on the Fourth Amendment, Professor Amsterdam explained why the availability of information from unofficial sources does not give the government *carte blanche* to utilize police methods to obtain that same information. *See* Amsterdam, *supra* note 23 at 406-07 ("Every person who parks his or her car on a side street in Greenwich Village voluntarily runs the risk that it will be burglarized—a risk, I should add as one who has lived in Greenwich Village, that is very much higher than the risk of betrayal by your friends even if you happen to choose your friends exclusively from a circle of Machiavellian monsters. Does that mean that government agents can break into your parked car uncontrolled by the fourth amendment? Or pay the junkies to break into it?").

[211] Smith v. Maryland, 442 U.S. 735, 741 (1979).

[212] *See Kyllo*, 533 U.S. at 41 (noting that the police observations "were made with a fairly primitive thermal imager that gathered data exposed on the outside of petitioner's home but did not invade any constitutionally protected interest in privacy") (Stevens, J., dissenting) (footnote omitted); *id.* at 44 ("equipment in this case did not penetrate the walls of petitioner's home, and while it did pick up

Alternatively, one might try to distinguish *Smith* by arguing that a homeowner assumes the risk that the police would learn the numbers he dialed from his home because those numbers were revealed to the telephone company, which, in turn, was free to provide the numbers to the police. Although the *Smith* Court accepted that rationale, it is not a convincing legal theory to measure the scope of the Fourth Amendment.[213] But even if one is persuaded by risk theory, that logic is equally applicable to Danny Kyllo's case. Indeed, the court of appeals, the Solicitor General's office, and Justice Stevens all endorsed the notion that Kyllo assumed the risk that someone located outside might detect the heat emanating from his home.[214]

'details of the home' that were exposed to the public, it did not obtain 'any information regarding the *interior* of the home.'"); Brief for the United States at 19, *Kyllo* (No. 99-8508) ("the imager did not literally or figuratively penetrate the walls of petitioner's house and perceive private activities inside"); *id.* at 26 (stating that the thermal imager detected "only heat radiating from the external surface of the house").

[213] *See e.g.,* United States v. White, 401 U.S. 745, 786 (1971) (Harlan, J., dissenting) (noting that the "risk analysis" model of prior cases "lead to the substitution of words for analysis. The analysis must, in my view, transcend the search for subjective expectations or legal attribution of assumptions of risk. Our expectations, and the risks we assume, are in large part reflections of laws that translate into rules the customs and values of the past and present."); Slobogin, *supra* note 28, at 1417 (noting that assumption of risk theory is "vacuous" in *Kyllo*: "The most pertinent illustration of that fact is that until the Supreme Court decision in *Kyllo*, in most jurisdictions we 'assumed the risk' that police subject the interior of our houses to thermal imaging without obtaining a warrant or developing any level of suspicion that evidence of a crime would be discovered."); *cf.* Amsterdam, *supra* note 23, at 470, n.492 ("The question is whether the [F]ourth [A]mendment regulates the activity of the police in dispatching spies to insinuate themselves into people's confidences and homes . . . . If it does not, then the government may unleash its spies on any of us, criminals or not; and talk about 'criminals' assuming the risks means that we all assume the risks."); Baldwin v. United States 450 U.S. 1045 (1981) (Marshall, J., dissenting). In *Baldwin*, the Court denied certiorari to review the claim that a search occurred when an undercover agent, who had obtained a position as the defendant's handyman and chauffeur, obtained samples of cocaine from the defendant's home. *Baldwin*, 405 U.S. at 1045. Justice Marshall complained that under the logic of the lower court, "the Government need never satisfy the probable-cause and warrant requirements of the Fourth Amendment if, by disguising its officers as repairmen, babysitters, neighbors, maids, and the like, it is able to gain entry into an individual's home by ruse rather than force in order to conduct a search." *Id.* at 1049 (Marshall, J., dissenting) (footnote omitted).

[214] *See* United States v. Kyllo, 190 F. 3d 1041, 1046 (9th Cir. 1998) (explaining

According to Justice Stevens, society is unlikely to suffer from "a rule requiring the rare homeowner who both intends to engage in uncommon activities that produce extraordinary amounts of heat, and wishes to conceal that production from outsiders, to make sure that the surrounding area is well insulated."[215]

Moreover there are additional similarities between a thermal imager and a pen register. In *Kyllo*, Justice Scalia explained that a search occurs whenever police use "sense-enhancing technology [to obtain] any information regarding the interior of the home that could not otherwise have been obtained without physical 'intrusion into a constitutionally protected area.'"[216] Under this standard, a pen register is also a search because it is technology that enables the police to obtain information regarding the interior of the home that could not otherwise have been obtained without physical intrusion into the home. The pen register reveals the numbers dialed on a home telephone that would otherwise be unavailable unless officers were inside the home to observe the dialing.[217] Furthermore, a pen register is not a device generally used by the public.[218] And finally, the pen register reveals details about

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that Kyllo "took no affirmative action to conceal the waste heat emissions created by the heat lamps needed for a success indoor grow"); Brief for United States at 25, *Kyllo* (No. 99-8508) ("When a government investigator is in a public place and uses technology to observe an area exposed to the public; it does not constitute a search, provided that technology does not directly detect private activity (or other private details) occurring in a private area."); *Kyllo*, 533 U.S. at 45 (Stevens, J., dissenting).

[215] *Kyllo*, 533 U.S. at 45 (Stevens, J., dissenting).

[216] *Id.* at 34 (citation omitted).

[217] Of course, one might argue that because the police could subpoena a person's telephone records and obtain information about the numbers dialed within a home, the Fourth Amendment does not bar the police from obtaining that same information pursuant to a pen register. Under *Kyllo*'s analysis, however, a pen register does not become a non-search simply because the information revealed by the pen register is available from other sources. *Id.* at 35, n.2 ("The fact that equivalent information could sometimes be obtained by other means does not make lawful the use of means that violate the Fourth Amendment.").

[218] *See* Carrie L. Groskopf, *If It Ain't Broke, Don't Fix It: The Supreme Court's Unnecessary Departure From Precedent in* Kyllo v. United States, 52 DEPAUL L. REV. 201, 243 (2002) ("A pen register, in fact, is a device geared specifically for law enforcement purposes, and not for individual use. It would seem then, that

the home. Indeed, a pen register provides more revealing and intimate details about the home than a thermal imager. While a thermal imager measures relative amounts of heat that may be escaping the home, a pen register identifies the people and organizations called by a homeowner, and thus reveals "the most intimate details of a person's life."[219]

In sum, the legal analysis that dictates the conclusion that thermal imaging is a search also compels the conclusion that a pen register is a search. Despite the parallels between a thermal imager and a pen register, Justice Scalia made no effort to reconcile *Kyllo*'s holding with *Smith v. Maryland*.[220] This is not to suggest that the Justices comprising the *Kyllo* majority are ready to reconsider or overrule *Smith*. If forced to revisit the constitutionality of pen registers, it is highly likely that the current Court would reaffirm *Smith*'s holding notwithstanding the result in *Kyllo*. That said, Justice Scalia's silence regarding *Smith* is worth mentioning. Notwithstanding the shared traits between a thermal imager and a pen register, Justice Scalia's analysis in *Kyllo* proceeds forward oblivious to the tension between *Kyllo*'s holding that thermal imaging is a search and *Smith*'s ruling that a pen register is not a search. Conceivably, Justice Scalia did not notice the tension between *Kyllo*'s holding and *Smith*'s holding, although that is an unlikely scenario since a number of law professors immediately recognized the tension.[221] Perhaps, Justice Scalia's silence was compelled by

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under the reasoning of *Kyllo*, because a pen register is arguably *not* considered to be commonly available to the general public, the employment of a pen register should be unconstitutional.") (footnote omitted).

[219] Smith v. Maryland, 442 U.S. 735, 748 (1979) (Stewart, J., dissenting).

[220] While Justice Scalia did not attempt to reconcile his logic with *Smith*'s holding, Justice Stevens argued that technological equipment that disclosed "only the relative volume of sound leaving [a telephone] booth, which presumably was discernible in the public domain," would be constitutional under *Smith*'s holding. *Kyllo*, 533 U.S. at 49-50, n.6 (Stevens, J., dissenting).

[221] *See e.g.,* Joshua Dressler, posting on Jan. 17, 2002 (copy on file with author) ("Of course, after *Kyllo* last year, one can seriously question whether *Smith v. Maryland* can be justified on any reasonable basis of principle. If a thermal imager used outside a house to detect heat levels inside a house is unconstitutional (in the absence of a warrant), one wonders why the rule should be different in the case of a pen register obtaining phone calling activities inside."). *But cf.* Norman M. Garland, posting on Jan. 17, 2002 (copy on file with author) ("I

the need to maintain the vote of one or more members of the *Kyllo* majority who were unwilling to join an opinion that cast doubt on the result in *Smith*. Whatever the explanation, at some point in the future, the Court may be forced to address the conflict between *Kyllo* and *Smith*. When that happens, my prediction is that the Court will confine *Kyllo*'s reasoning to its special facts, reaffirm *Smith*'s holding, and find that the Fourth Amendment presents no obstacles to using technology that is the functional equivalent of a pen register.[222]

Another precedent that *Kyllo*'s reasoning undermines is *United States v. Place*.[223] *Place* permitted police use of another type of technology—albeit canine technology—that has impacted Fourth Amendment rights.[224] *Place* held that a canine sniff of luggage that discloses only the presence or absence of narcotics is not a search.[225] In his *Kyllo* dissent, Justice

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think that [*Kyllo*] reaffirms the validity of the *Smith* case. Scalia, for the majority, cites *Smith* to distinguish it from the case before it."). I think that Professor Garland places too much weight on Justice Scalia's citation of *Smith*. Justice Scalia's sole reference to *Smith* occurs in Part II of his opinion which describes the law concerning police activities that trigger Fourth Amendment protection. As Professor Garland notes, Justice Scalia states that the *Katz* test has been applied "in holding that it is not a search for the police to use a pen register at the phone company to determine what numbers were dialed in a private home, *Smith v. Maryland*, 442 U.S. 735, 743-744 (1979)." *Kyllo*, 533 U.S. at 33. Scalia then explains that *Kyllo* "involves officers on a public street engaged in more than naked-eye surveillance of a home," and comments that the Court has "previously reserved judgment as to how much technological enhancement of ordinary perception from such a vantage point, if any, is too much." *Id.* Justice Scalia's standard of review is announced in Part III of his opinion. S*ee Id.* at 34. After announcing that standard, Justice Scalia never compares or contrasts the holding in *Smith* with the standard established in *Kyllo*. Thus, rather than distinguish *Smith*'s holding from the rule announced in *Kyllo*, Justice Scalia is, at best, indifferent to *Smith*, and makes no effort to reconcile his own reasoning with *Smith*'s analysis and holding.

[222] *See infra* notes 343-59 and accompanying text.

[223] 462 U.S. 696 (1983).

[224] *Place*, 462 U.S. at 707.

[225] *Id.* In a rather casual manner, and without prompting a dissent, *Place*'s holding was extended to automobiles in *Indianapolis v. Edmond*, 531 U.S. 32, 40 (2000). *Edmond* ruled that a narcotics vehicle checkpoint was an unreasonable seizure because its primary purpose was law enforcement related. *Edmond*, 531 U.S. at 48. As it did in *Place*, the *Edmond* Court reached out to decide the constitutionality of a narcotics dog sniff of an automobile, even though that issue was unrelated to the central issue before the Court. *Id.* at 40. Speaking for the

Stevens complained that the Court's rule would cover devices that are designed to detect emissions coming from a house.[226] Justice Stevens sensibly noted *Place*'s holding would authorize "sense-enhancing equipment that identifies nothing but illegal activity."[227] According to Justice Stevens, *Place*'s holding has been diluted because use of a mechanical dog or other type of technology directed at home that might detect "the odor of deadly bacteria or chemicals for making a new type of high explosive" would be illegal under *Kyllo*'s reasoning.[228]

Interestingly, Justice Scalia chose not to respond to Justice Stevens's comments on the future viability of *Place*'s holding concerning technological devices that provide information regarding the interior of a home. Justice Scalia's silence on this point is even more perplexing than his refusal to discuss *Kyllo*'s impact on *Smith*'s holding for two reasons. First, the conflict between *Kyllo* and extending *Place*'s holding to cover technological devices that reveal information about the inside of a home is even more striking than the tension between *Kyllo* and *Smith*. A dog sniff, whether mechanical or not, that detects the odor of contraband or deadly bacteria coming from a home is easily covered by *Kyllo*'s rule that a search occurs whenever "sense-enhancing technology [enables the police to obtain] any information regarding the interior of [a] home that could not otherwise have been obtained without physical 'intrusion into [the home].'"[229] Second, when *Kyllo* was under review by the Court, an influential federal court of appeals had already ruled that *Place*'s holding should not be extended to private homes.[230] It would be surprising that the Court was unaware of this development when deciding *Kyllo*.[231]

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majority, Justice O'Connor, relying exclusively on *Place*, ruled that a canine sniff of a car is not a search. *Id.*

[226] *Kyllo*, 533 U.S. at 47 (Stevens, J., dissenting).

[227] *Id.*

[228] *Id.* at 48.

[229] *Id.* at 34.

[230] United States v. Thomas, 757 F.2d 1359 (2d Cir. 1985).

[231] Professor LaFave's treatise gives prominent attention to *Thomas*. *See* LAFAVE, *supra* note 21, § 2.2(f) at 459. LaFave also highlights that the validity of *Thomas*'s legal analysis was questioned in *United States v. Colyer*, 878 F.2d 469 (D.C. Cir. 1989), which ruled that a dog sniff of a roomette in a train was not a

Moreover, several lower court judges have acknowledged the conflict between *Kyllo* and *Place*.[232] Although the lower courts have reached different results on the constitutionality of canine sniffs in various contexts, several judges have commented that *Kyllo* "appears to run counter to the analytical basis of the 'dog sniff' rule."[233] My emphasis on the tension between *Kyllo* and *Place* is not to predict that the *Kyllo* majority is poised to overrule or reconsider *Place*. Indeed, during the same Term that *Kyllo* was decided, the Court unanimously held in *Indianapolis v. Edmond*[234] that a dog sniff of an automobile was not a search, and cited *Place* as the controlling precedent. Of course, under the Court's precedents, cars and containers found therein are not entitled to the same privacy interests that are afforded to homes,[235] but luggage is normally entitled to more privacy than cars,[236] unless, of course, the luggage is found inside an automobile.[237]

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search. *See* LAFAVE, *supra* note 21, § 2.2(f) at 460.

[232] *See, e.g.* United States v. Richard, No. CRIM 01-20048-01, 2001 WL 1033421, at *6 n.4 (W.D. La., 2001); State v. Wiegand, 645 N.W. 2d 125, 130 (Minn. 2002); People v. Haley, 41 P.3d 666, 671 n.2 (Colo. 2001); State v. Bergmann, 633 N.W.2d 328, 334 (Iowa 2001); State v. Miller, 647 N.W.2d 348, 355 n.2 (Wis. App. 2002) (Dykman, J. concurring).

[233] *Richard*, 2001 WL 1033421, at *6 n.4. *See also Wiegand*, 645 N.W.2d at 138 (Page, J., concurring) ("I do not see a distinction between sense-enhancement-by-technology and sense-enhancement-by canine."); *Haley*, 41 P.3d at 671 n.2 ("In our view, the logic of [*Kyllo*'s] holding undercuts the prosecution's argument that dog sniffs of the outside of an automobile to detect the contents thereof do not fall within a reasonable expectation of privacy.").

[234] 531 U.S. 32, 40 (2000).

[235] *See* California v. Carney, 471 U.S. 386 (1985). Chief Justice Burger's opinion in *Carney* held that the "automobile exception"—which permits warrantless searches of cars provided there is probable cause—controlled the search of a motor-home that was found in a public parking lot. *Carney*, 471 U.S. at 390-94.

[236] *See* United States v. Chadwick, 433 U.S. 1 (1977). *Chadwick* held that a warrantless search of a footlocker was unconstitutional, even though there was probable cause to believe it contained contraband. *Chadwick*, 433 U.S. at 15-16. In an opinion by Chief Justice Burger, the Court pointedly rejected the government's argument that the automobile exception should equally apply to movable containers, and that the warrant requirement should be confined to searches of homes and other areas of "core" privacy interests. *Id.* at 11-13.

[237] A description of the intricacies and absurdities of the Court's automobile search doctrine is beyond the scope of this article. Cases such as *Wyoming v. Houghton*, 526 U.S. 295 (1999), *California v. Acevedo*, 500 U.S. 565 (1991), and *United States v. Ross*, 456 U.S. 798 (1982) are examples of the Court's most re-

My point is not to predict the demise of *Place*. Rather, my contention is that *Kyllo* undercuts the argument that a dog sniff of an apartment or a roomette on a train is not a search under the Fourth Amendment. Like a thermal imager, a canine sniff is a law enforcement device that allows the police to obtain information regarding the interior of a home or other protected area that could not otherwise have been obtained without a physical intrusion.[238] Of course, dogs, more so than pen registers, electronic beepers and airplanes are generally available to the public,[239] which may make *Kyllo*'s reasoning in-

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cent pronouncements in this area.

[238] *Cf.* Thomas K. Clancy, *Coping with Technological Change:* Kyllo *and the Proper Analytical Structure to Measure The Scope of Fourth Amendment Rights*, 72 MISS. L.J. 525, 557 (2002) (asserting that the "logic of [*Kyllo*'s] analysis surely must apply to all technological devices that detect information about the interior of the home"). At least one lower court has intimated that *Kyllo* does not affect canine sniffs because a dog sniff is not "technology" within the meaning of the *Kyllo*'s holding. *See Wiegand*, 645 N.W.2d at 130 n.3. In *Wiegand*, the Minnesota Supreme Court distinguished the facts involved there, namely, a dog sniff of a car, by stating: "We are not faced with the issue of a dog sniff around a *home*, nor are we faced with an investigative technique involving a piece of *technology* with the potential for dramatic technological advancements." *Id.*; *see also Haley*, 41 P.3d at 677-78 (Kourlis, J., dissenting) (rejecting the majority's argument that *Kyllo* undermines *Place*'s logic: "A dog sniff is not a technological advancement that invites the same sort of concern [present in *Kyllo*].). That conclusion misses the point of *Kyllo*. Justice Scalia specifically noted that the Court had "reserved judgment as to how much technological enhancement of ordinary perception from [a public] vantage point, if any, is too much." Kyllo v. United States, 533 U.S. 27, 33 (2001). Canine sniffs undoubtedly *enhance* the ordinary sensory faculties of police officers. In fact, police "use of a dog is not a mere improvement of their sense of smell, as ordinary eye glasses improve vision, but is a significant enhancement accomplished by a different, and far superior, sensory instrument." United States v. Thomas, 757 F.2d 1359, 1367 (2d Cir. 1985). While it is imaginable that a police officer, using her ordinary senses, might be able to discern the same information that a thermal imager reveals, *see Kyllo*, 533 U.S. at 43 (Stevens, J., dissenting) ("[T]he ordinary use of the senses might enable a neighbor or passerby to notice the heat emanating from a building, particularly if it is vented, as was the case here."), the dog sniff does what no ordinary person can do. *See* Harris, *supra* note 119, at 24 n.137 ("Although both man and dog can smell, the dog's nose was not simply a way to enhance what the human at the end of the leash could do. Rather, the canine nose is so much better—more sensitive and more accurate—than its human counterpart that it simply could not be said to replace it.").

[239] At least one state supreme court justice, however, has stated that a contraband sniffing dog should not be considered technology in general public use. *See Wiegand*, 645 N.W.2d at 138 (Page, J., concurring specially) ("In this case, the

applicable to canine sniffs.[240] As others have already noted, however, whether a particular device is in general public use should have no impact on Fourth Amendment analysis.[241] House burglars are prevalent too, but because I run the risk that my home may be burglarized does not mean that a warrantless police invasion of my house is not a search. Likewise, if technology gives the government access that is the functional equivalent of physical presence in my home, the general availability of that technology should not make a difference when deciding whether the *government's* use of that technology constitutes a search. A dog sniff is a *search* because it provides the functional equivalent of actual presence in the area being targeted.

Sooner or later, the Court will have the opportunity to address the conflict between *Kyllo* and *Place*. When that occasion arises, my prediction is the Court will give *Kyllo* a narrow reading and extend *Place*'s holding to authorize dog sniffs of private residences.[242] If my guess is correct, a major element

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sense-enhancing dog sniff, *not in general public use*, obtained information regarding the interior of the vehicle. . . . ") (emphasis added).

[240] Whether the "general public use" rule is part of *Kyllo*'s holding is uncertain. "It is worth noting that the *Kyllo* majority never firmly adopted the general public use doctrine. In a footnote, it stated that general public use 'may' be a factor in the search analysis, and intimated it might 'reexamine' this factor in the future." Slobogin, *supra* note 28, at 1432 n.179 (citing *Kyllo*, 533 U.S. at 39 n.6).

[241] Justice Stevens correctly asserted that a "general public use" rule is "perverse because it seems likely that the threat to privacy will grow, rather than recede, as the use of intrusive equipment become more readily available." *Kyllo*, 533 U.S. at 47 (Stevens, J., dissenting). For a compelling critique of the "general public use" factor apparently established in *Kyllo*, *see* Slobogin, *supra* note 28. In a pre-*Kyllo* article, Professor David Harris also pointed out the flaws in having the scope of the Fourth Amendment turn on what technology is generally available to the public. Harris, *supra* note 119, at 23 (noting that the "type of technology the public can possess may change with surprising speed. Worse, the Court's reasoning implies that citizens somehow assume the risk of being observed by whatever technology the government can muster for its crime-fighting efforts.").

[242] The Court will probably distinguish *Kyllo* in this context by explaining that a dog sniff only detects "the presence or absence of narcotics, a contraband item. Thus, despite the fact that the sniff tells the authorities something about the contents of the [home], the information obtained is limited." *Place*, 462 U.S. at 707. In contrast, the information disclosed by a thermal imager is not limited to detecting contraband. A recent lower court holding supports my prediction. *See* Porter v. Texas, No. 14-01-0177-CR to 14-01-0179-CR, 2002 WL 31008148 (Tex.

of *Kyllo*'s framework will be diluted and the Court will have, literally and figuratively, "opened the doors" of people's homes to various types of technological devices that can selectively identify emissions coming from a home.[243]

In sum, *Kyllo*'s impact on future Fourth Amendment doctrine may be limited because Justice Scalia's opinion conflicts with key aspects of search and seizure law that currently permit technological and other sense-enhancing instruments to be used to gather information about "the most intimate details of a person's life."[244] Unless the Court is prepared to overrule (or severely limit) cases like *Smith v. Maryland* and *United States v. Place* (and there is no hint in *Kyllo* that the Court is ready to do this), the "right" announced in *Kyllo* will most likely be confined to a privilege against the use of a thermal imager directed at one's home.[245]

App. Sept. 5, 2002). *Porter* held that a dog sniff of a home is not a search. *Porter*, 2002 WL 31008148 at *3. The *Porter* court explained that a dog sniff only discloses whether or not contraband is present and that a person does not have a legitimate expectation of privacy in possessing contraband. *Id. See also,* George M. Dery III, *The Loss of Privacy Is Just a Heartbeat Away: An Exploration of Government Heartbeat Detection Technology and Its Impact on Fourth Amendment Protections*, 7 WM. & MARY BILL RTS. J. 401, 412-13 (1999) (noting that the rule emerging from *Place* and *Jacobsen* is that if officials utilize devices that are "so precise as to identify nothing but illegally-possessed items, then the surveillance did not constitute a search"); Simmons, *supra* note 120, at 1352, n.208 ("[S]ince the Court in *Jacobsen* essentially held that there is no legitimate privacy interest in possessing illegal substances, the Court could easily harmonize the *Kyllo* test with the *Place* doctrine by confirming that *Kyllo* only applies to areas, activities and items in which an individual has a legitimate expectation of privacy. The specific language used in *Kyllo* already implies this, since it limits the test to 'details of the home,' which clearly deserve constitutional protection."); *cf.* Michael Adler, *Cyberspace, General Searches, and Digital Contraband: The Fourth Amendment and the Net-Wide Search*, 105 YALE L. J. 1093, 1098 (1996) (considering the Fourth Amendment implications of a "perfect search"—a computer program that would scan a hard drive and "report only the presence or absence of an *exact* copy of a certain piece of illegal modified software," and would "ignore everything else on the disk, no matter how blatantly illegal—or sensationally intriguing—a human investigator might find that information.").

[243] *Cf. Kyllo*, 533 U.S. at 45 (Stevens, J., dissenting) ("[P]ublic officials should not have to avert their senses or their equipment from detecting emissions in the public domain such as excessive heat, traces of smoke, suspicious odors, odorless gases, airborne particulates, or radioactive emissions, any of which could identify hazards to the community.").

[244] Smith v. Maryland, 442 U.S. 735, 748 (1979) (Stewart, J., dissenting).

[245] A few lower courts have already hinted that Kyllo's holding does not extend

B. Kyllo *and Bright-Line Rules*

The second reason to question *Kyllo*'s impact on future cases focuses not on technology or scientific innovation, but on old-fashion Fourth Amendment doctrine. As noted earlier, Justice Scalia's opinion stressed the importance of bright-line rules, which provide guidance to police officers and judges who must follow and apply the Court's search and seizure doctrine. According to Justice Scalia, a clear constitutional rule was vital in *Kyllo* because "the Fourth Amendment draws 'a firm line at the entrance to the house.' That line, we think, must be not only firm but also bright—which requires clear specification of those methods of surveillance that require a warrant."[246] Justice Stevens' dissent ridiculed the quality and clarity of Justice Scalia's *per se* rule, describing it as both "far too broad" and "too narrow," depending on the context.[247] To the surprise of

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to the use of a thermal imager to scan premises other than the home, such as commercial premises. *See* United States v. Elkins, 300 F.3d 638, 646 (6th Cir. 2002) ("While *Kyllo* broadly protects homes against warrantless thermal imaging, the case before us involves the use of a thermal image to scan the Elkinses' *commercial* buildings.") (emphasis added); State v. Mordowanec, 788 A.2d 54 (Conn. 2002) ("The *Kyllo* decision did not address the question of whether a search warrant would be required to conduct a thermal imaging scan of premises other than a home, such as a commercial property. The court emphasized, however, the heightened expectation of privacy in one's home and distinguished that heightened expectation from the lesser expectation of privacy in a commercial property."). Although these cases did not resolve the constitutional issue at stake, they surely indicate a reluctance to extend *Kyllo*'s reach beyond a private home.

[246] *Kyllo*, 533 U.S. at 40 (citation omitted).

[247] As noted above, *see supra* notes 226-28 and accompanying text, Justice Stevens asserted that *Kyllo*'s rule was too broad because it would "embrace potential mechanical substitutes for dogs trained to react when they sniff narcotics," which would undermine the result and reasoning in *Place*. *Kyllo*, 533 U.S. at 47 (Stevens, J., dissenting). Justice Stevens also contended that *Kyllo*'s rule was unnecessarily broad because it covers any information regarding the interior of a home. *Id.* "If it takes sensitive equipment to detect an odor that identifies criminal conduct and nothing else, the fact that the odor emanates from the interior of a home should not provide it with constitutional protection." *Id.* at 48. At the same time, Justice Stevens criticized *Kyllo*'s holding as being too narrow.

> Clearly, a rule that is designed to protect individuals from the overly intrusive use of sense-enhancing equipment should not be limited to a home. If such equipment did provide its user with the functional equivalent of access to a private place—such as, for example, the telephone

many Court-watchers, Justice Stevens preferred giving politicians "an unimpeded opportunity" to resolve future developments concerning technology and Fourth Amendment rights, "rather than to shackle them with prematurely devised constitutional restraints."[248]

The important point here is not deciding who makes the better argument on the need for bright-line rules in the context of thermal imaging, but rather that Justice Scalia's conclusion on the need for *per se* rules is not likely to change or effect future Fourth Amendment doctrine, no matter how persuasive his arguments may have been in *Kyllo*. The Court's zigzag approach on the appropriateness of bright-lines in search and seizure cases is notorious.[249] There is no neutral principle explaining the Court's willingness to use (or not use) bright-line rules. "[B]right lines will be applied when the Court decides to apply them."[250] There is no reason to think that *Kyllo* will alter this situation. Justice Scalia's triumph in *Kyllo* in persuading a majority of his colleagues on the benefits of bright-line rules will likely be a temporary victory.

The Court's most recent cases demonstrate how unlikely it is that *Kyllo*'s preference for bright-line rules will have a lasting impact. In the same Term in which *Kyllo* adopted a *per se* rule for determining whether thermal imaging was a search, the Court adopted a balancing analysis rather than a *per se* rule in another case involving the scope of protection the Fourth Amendment provides for the home. Decided four

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> booth involved in *Katz*, or an office building—then the rule should apply to such an area as well as to the home.

Id. at 48-49 (Stevens, J., dissenting).

[248] *Id.* at 51.

[249] *See generally,* Albert W. Alschuler, *Bright Line Fever and the Fourth Amendment*, 45 U. PITT. L. REV. 227 (1984); Wayne R. LaFave, *The Fourth Amendment In An Imperfect World: On Drawing "Bright Lines" and "Good Faith"*, 43 U. PITT. L. REV. 307 (1982); *cf.* Tracey Maclin, *The Fourth Amendment on the Freeway*, [hereinafter, *The Fourth Amendment on the Freeway*], 3 RUTGERS RACE & L. REV. 117, 151-57 (2001) (arguing that the Court has yet to articulate a principled rule for deciding when a bright-line rule controls a Fourth Amendment issue involving a traffic stop).

[250] Maclin, *The Fourth Amendment on the Freeway*, *supra* note 249, at 157.

months prior to *Kyllo*, *Illinois v. McArthur*[251] concerned whether police, who had probable cause that marijuana was in a home, could seize the home and prevent the homeowner from entering his premises unaccompanied by an officer for approximately two hours while a search warrant was being obtained.[252] The Court concluded that the seizure was lawful.[253]

Two police officers accompanied Charles McArthur's wife when she went to his trailer-home to remove her belongings.[254] When the wife and the officers arrived, McArthur was *inside* his home.[255] The officers remained outside while the wife retrieved her possessions.[256] After gathering her belongings, the wife informed the officers that McArthur had concealed "'some dope underneath the couch.'"[257] The officers then knocked on the door and requested permission to search the home.[258] McArthur denied the request while standing outside his trailer.[259] The officer in charge then told McArthur that he could not reenter his home without a police escort.[260] The second officer left the scene to obtain a search warrant.[261] Two hours later, authorized by a search warrant, the police searched McArthur's home and found a small amount of marijuana and drug paraphernalia under the sofa.[262]

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[251] 531 U.S. 326 (2001).

[252] *McArthur*, 531 U.S. at 329.

[253] *Id.* at 331.

[254] *Id.* at 328.

[255] *Id.* at 328-29.

[256] *Id.* at 329.

[257] *Id.*

[258] *Id.*

[259] *Id.* The officer in charge could not "recall whether he told [McArthur] to come out of the trailer or if [McArthur] came out on his own." People v. McArthur, 713 N.E.2d 93, 94 (Ill. App. 4 Dist. 1999), *reversed*, 531 U.S. 326 (2001). McArthur's presence *inside* his home was a critical factor in the lower court's decision to sustain McArthur's Fourth Amendment claim. *See McArthur*, 713 N.E.2d at 98. For a discussion of why this point was critical to the constitutional issue in *McArthur*, see Craig M. Bradley, Illinois v. McArthur: *Preserving Evidence Pending Search Warrants*, TRIAL, JUNE 2001, at 70; Tracey Maclin, *Let Sleeping Dogs Lie: Why The Supreme Court Should Leave Fourth Amendment History Unabridged*, 82 B.U. L. REV. 895, 934-35 (2002).

[260] *McArthur*, 531 U.S. at 329.

[261] *Id.*

McArthur was charged with two misdemeanor offenses.[263] The Illinois judiciary sustained his claim that the police seizure of his home violated the Fourth Amendment, but Justice Breyer's opinion reached a different conclusion.[264] According to Justice Breyer, the central requirement of the Fourth Amendment is "reasonableness."[265] He explained that the Court interprets reasonableness "as establishing rules and presumptions designed to control conduct of law enforcement officers that may significantly intrude upon privacy interests."[266] Sometimes reasonableness requires warrants, but not always. Considering the totality of the circumstances in *McArthur*, Justice Breyer would not say "that the warrantless seizure was *per se* unreasonable."[267] Rather than announcing a bright-line rule, *McArthur* "balance[d] the privacy-related and law enforcement related concerns to determine if the intrusion was reasonable."[268] Under a balancing formula, Justice Breyer concluded that the seizure was reasonable.[269]

Why does the Court adopt a bright-line rule in *Kyllo*, but prefer a balancing test in *McArthur*, even though both cases concern the sanctity and security of a home? One might say that because *Kyllo* involved the "threshold" issue of whether a search occurred, a *per se* rule is necessary to provide guidance for police officers. If the challenged police conduct does not involve a "search" within the meaning of the Fourth Amendment, police officers need not worry about the "reasonableness" of their actions. They are free to proceed without obtaining a warrant, and they need not worry whether they have probable cause or reasonable suspicion of criminality to justify their intrusion. On the other hand, in *McArthur* there was no question that a seizure had occurred. Thus, the "threshold" issue of whether the police conduct triggered Fourth Amendment scrutiny was not on the table. The only question confronting the Court concerned the "reasonableness" of the seizure. Reasonableness generally—although not always—requires a consideration of the totality of the circumstances.

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[262] *Id.*

[263] *Id.* McArthur was charged with unlawfully possessing drug paraphernalia and marijuana (less than 2.5 grams).

[264] *Id.* at 329-31.

[265] *Id.* at 330.

[266] *Id.* at 330.

[267] *Id.* at 331. According to Justice Breyer, the facts involved "a plausible claim" of exigent circumstances. He also noted that the seizure was tailored to the police need, was limited in time and scope, and avoided "significant intrusion into the home itself." *Id.*

[268] *Id.* (citing Delaware v. Prouse, 440 U.S. 648 (1979) and United States v. Brignoni-Ponce, 442 U.S. 873 (1975) which were not "house" cases).

[269] *Id.* For a critique of *McArthur* and an explanation why *McArthur* failed to address the crucial issue confronting the Court, see Bradley, *supra* note 259, at 70 (arguing that "the issue here is not one of sealing unoccupied premises but of seizing an occupied dwelling and ejecting the occupant").

If this explanation accurately describes the Court's approach, then *Kyllo* and *McArthur*—rather than illustrate the Court's unprincipled approach toward bright-line rules—demonstrate a coherent theme. But the two most recent cases involving whether a police intrusion constitutes a search, *Minnesota v. Carter*[270] and *Bond v. United States*,[271] cast doubt on the validity of this explanation. An earlier discussion noted the differences between *Kyllo*, which adopted a bright-line rule, and *Minnesota v. Carter*, which eschewed a *per se* rule for determining whether guests or visitors will have an expectation of privacy in their host's home.[272] Although both *Carter* and *Kyllo* involved the threshold issue of whether a search occurred, the Court took divergent paths to resolve this issue.[273]

Carter is not the only recent case where the Rehnquist Court avoids bright-line rules for determining whether a search has occurred. *Bond v. United States*,[274] decided a year before *Kyllo*, concerned whether an officer's squeeze of luggage triggered Fourth Amendment protection.[275] Steven Dewayne Bond was a passenger on an interstate bus that was stopped at a border patrol checkpoint in Texas. An immigration officer squeezed Bond's canvas bag that was in the overhead compartment. The officer felt a "brick-like" object inside. A search of the bag revealed a "brick" of methamphetamine. The issue before the Court was whether the officer's squeeze constituted a search.[276] Writing for a seven Justice majority, Chief Justice Rehnquist ruled that the squeeze was a search. First, the Chief Justice explained that the officer's motive for touching the bag was irrelevant to the constitutional issue.[277] He then explained that while a bus passenger may expect that others will handle his luggage, a passenger "does not expect that other passengers or bus employees will, as a matter of course, feel the bag in an exploratory manner."[278] Because the officer's squeeze was probing rather than the equivalent of what a passenger might do to create more room in the overhead rack, the Chief Justice held that a search occurred.[279]

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[270] 525 U.S. 83 (1998).

[271] 529 U.S. 334 (2000).

[272] See *supra* notes 78-102 and accompanying text.

[273] *Compare Carter*, 525 U.S. at 91 *with Kyllo*, 533 U.S. at 40.

[274] 529 U.S. 334 (2000).

[275] *Bond*, 529 U.S. at 335.

In sum, *Carter* and *Bond* demonstrate that the Rehnquist Court is not devoted to bright-line rules when determining the scope of the Fourth Amendment. Notwithstanding sensible arguments to the contrary,[280] the Court established a legal framework where the constitutional rights of house guests and interstate travelers will depend on a balancing process that will be initially conducted by police officers who may be disinclined to respect the Fourth Amendment rights of individuals. Unlike the *per se* rule announced in *Kyllo*, the totality tests of *Carter* and *Bond* afford scant guidance to officers interested in knowing whether their actions trigger constitutional safeguards. In sum, the reasoning and results in *Kyllo*, *Carter* and *Bond* illustrate that the Court has yet to articulate a coherent rationale for deciding when a bright-line rule will be used to resolve whether a police intrusion constitutes a search under the Fourth Amendment.

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[276] *Id.* at 35-36.

[277] *See Id.* at 338 n.2 ("[T]he issue is not his state of mind, but the objective effect of his actions.").

[278] *Id.* at 338-39.

[279] *Id.* at 339.

[280] *See* Minnesota v. Carter, 525 U.S. 83, 106-09 (1998) (Ginsburg, J., dissenting) (explaining why social guests and visitors should be entitled to rely on the privacy of their host's home). In *Bond*, Justice Breyer contended that the reasoning in that case "will lead to a constitutional jurisprudence of 'squeezes,' thereby complicating further already complex Fourth Amendment law, increasing the difficulty of deciding ordinary criminal matters, and hindering the administrative guidance (with its potential for control of unreasonable police practices) that a less complicated jurisprudence might provide." *Bond*, 529 U.S. at 342 (Breyer, J., dissenting).

Even if one believes that threshold cases justify the use of *per se* rules and cases resolving the "reasonableness" of a challenged search or seizure should be resolved under a balancing formula, this distinction does not account for the methodology utilized in *McArthur*. As noted above, the Court has afforded the home the most scrupulous protection under the Fourth Amendment.[281] To promote the home's security, the Court has essentially adopted a *per se* rule regarding police intrusions into the home: "[T]he Fourth Amendment has drawn a firm line at the entrance to the house. Absent exigent circumstances, that threshold may not reasonably be crossed without a warrant."[282] Granted, the police action in *McArthur* did not involve a forcible search or entry into a home, but it did breach the security McArthur enjoyed in his home. McArthur was inside his home when the police knocked and requested permission to search inside. When McArthur denied permission, he was forcibly detained outside his home while a search warrant was obtained.[283] This action certainly implicated the Fourth Amendment's explicit guarantee of a right "to be secure" in one's home.[284] Also, the need for police action in *McArthur* was less urgent than the justification rejected in *Welsh v. Wisconsin*,[285] which held the gravity of an offense is an important factor to consider when deciding whether exigency exists to justify a warrantless arrest inside a home.[286]

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[281] *See* notes 91-100 and accompany text.

[282] Payton v. New York, 445 U.S. 573, 590 (1980); *see also* Kirk v. Louisiana, 122 S. Ct. 2458, 2459 (2002) ("police officers need either a warrant or probable cause plus exigent circumstances in order to make a lawful entry into a home").

[283] Illinois v. McArthur, 531 U.S. 326, 329 (2001).

[284] Although there was no forcible *entry* of his home, McArthur's right to enjoy full possession of his home and right to be secure within his home was disturbed by the police action. *Cf.* Clancy, *supra* note 238, at 541 (explaining that "the essential attribute of the right to be secure is the *ability* of the individual to exclude the government from intruding. Thus, . . . as to a seizure of property, the individual may exercise the right to remain in possession . . . . This ability to exclude is so essential to the exercise of the right to be secure that is proper to say that it is the equivalent to the right—the right to be secure *is* the right to exclude."); Clancy, *supra* note 1, at 357 (same); Adler, *supra* note 242, at 1120 (asserting that "the Founders' ultimate desire was not that the government be reasonable but rather that the people be *secure* in their persons, houses, papers, and effects").

Concededly, reasonable minds can differ over whether the Court correctly resolved the issue at stake in *McArthur*.[287] My concern here is not whether the Court correctly decided the merits in *McArthur*; instead, my focus is on the methodology that the Court used to resolve the merits. Police intrusions that affect the security and sanctity of the home have traditionally been resolved by bright-line rules.[288] *McArthur* bucks that trend, but its explanations for eschewing a bright-line rule are hardly satisfying.[289] On the other hand, *Kyllo*, decided four months after *McArthur*, utilizes a bright-line rule to determine whether police conduct directed at a home implicates the Fourth Amendment.[290]

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[285] 466 U.S. 740 (1984).

[286] *Welsh*, 466 U.S. at 753. The police arrested Welsh inside his home without a warrant after they developed probable cause that Welsh had been driving while intoxicated. The state argued that exigent circumstances justified the arrest because evidence of Welsh's blood-alcohol level might have dissipated while waiting for a warrant to be secured. *Id.* at 753. The *Welsh* Court, however, invalidated the arrest because the state classified the offense "as a noncriminal, civil forfeiture offense for which no imprisonment was possible." *Id.* at 754 (citation omitted). In fact, *Welsh* moves close to announcing a *per se* rule against warrantless entries for arrest in cases of minor crimes. *See id.* at 753 ("[W]e note that it is difficult to conceive of a warrantless home arrest that would not be unreasonable under the Fourth Amendment when the underlying offense is extremely minor."); *id.* ("[A]pplication of the exigent-circumstances exception in the context of a home entry should rarely be sanctioned when there is probable cause to believe that only a minor offense, such as the kind at issue in this case, has been committed.").

In *McArthur*, Justice Breyer distinguishes *Welsh* on two grounds. *McArthur*, 531 U.S. at 336. First, he states that McArthur was detained for a "'jailable'" offense, whereas *Welsh* involved a "'nonjailable'" offense. *Id.* Second, he notes that the seizure involved in *McArthur* "is considerably less intrusive" than a police entry into a home to affect a warrantless arrest. *Id.* On the issue of exigency, Justice Breyer states that the facts in *McArthur* involve "a plausible claim" of exigent circumstances. *Id.* at 331.

[287] Professor Bradley calls the issue at stake in *McArthur* a "festering issue: When may police act to preserve evidence pending the arrival of a search warrant when they fear that someone inside the building may destroy the evidence?" Bradley, *supra* note 259, at 73.

[288] Exceptions to this statement may be Maryland v. Buie, 494 U.S. 325 (1990) and Richards v. Wisconsin, 520 U.S. 385 (1997). *Buie* held that the police may, while effecting the arrest of a felon in his home pursuant to an arrest warrant, conduct a protective sweep of a home when they have reasonable suspicion that the premises harbor an individual posing a danger to the officers or others. *Buie*, 494 U.S. at 337. *Richards* ruled that an unannounced entry into a home is permissible where the police have reasonable suspicion that knocking and announcing

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their presence and purpose would threaten officer safety or risk the destruction of evidence. *Richards*, 520 U.S. at 395.

[289] *McArthur*, 531 U.S. at 336. Justice Breyer explains that under the circumstances, "we cannot say that the warrantless seizure was *per se* unreasonable." *Id.* at 331. He then proffers two reasons for this conclusion. First, the facts involved "a plausible claim of specially pressing or urgent law enforcement need, *i.e.*, 'exigent circumstances.'" *Id.* Second, he notes that the seizure of McArthur "was tailored to that need, being limited in time and scope, and avoiding significant intrusion into the home itself." *Id.* Justice Breyer's first justification for the seizure—"a plausible claim" of exigency—"is a concept unknown in the Court's Fourth Amendment jurisprudence, and [he] made no effort to explain it." Maclin, *supra* note 259, at 935 n.182. Judges and police officers will undoubtedly have trouble determining the difference between exigent circumstances, which permits a warrantless entry of a home to effect an arrest or search, *see* Minnesota v. Olson, 495 U.S. 91, 101 (1990), and "a plausible claim" of exigency, which, after *McArthur* permits something less than a full-blown seizure of a home, and an implausible claim of exigency, which presumably would not have permitted the seizure upheld in *McArthur*. Justice Breyer's second justification for upholding the seizure—it was "both limited and tailored reasonably to secure law enforcement needs while protecting privacy interests"—typifies the fact-specific balancing often seen in Justice Breyer's search and seizure opinions. *See, e.g.*, Bd. of Ed. v. Earls, 122 S. Ct. 2559, 2569-71 (2002) (Breyer, J., concurring) (listing factors that make drug testing program valid); Wyoming v. Houghton 526 U.S. 295, 308 (1999) (Breyer, J., concurring) (distinguishing between searching a woman's purse found on the backseat of a car, and searching a purse "attached to her person"); Minnesota v. Carter, 525 U.S. 83, 103-05 (1998) (Breyer, J., concurring) (asserting that the record did not support the factual conclusions of the lower court's determination that an officer's conduct constituted a search). But this approach to Fourth Amendment issues has its own problems, as Justice Breyer knows. *See* Bond v. United States, 529 U.S. 334, 342 (2000) (Breyer, J., dissenting) (complaining that the Court's ruling on whether an officer's squeeze of luggage constitutes a search complicates "already complex Fourth Amendment law, [and] increas[es] the difficulty of deciding ordinary criminal matters, and hinder[s] the administrative guidance (with its potential for control of unreasonable police practices) that a less complicated jurisprudence might provide"); *see also,* Wayne R. LaFave, *"Case-By-Case Adjudication" versus "Standardized Procedures": The* Robinson *Dilemma*, 1974 SUP. CT. REV. 127, 141 ("A highly sophisticated set of rules, qualified by all sorts of ifs, ands, and buts and requiring the drawing of subtle nuances and hairline distinctions, may be the sort of heady stuff upon which the facile minds of lawyers and judges eagerly feed, but they may be 'literally impossible of application by the officer in the field.'") (footnote omitted).

[290] Kyllo v. United States, 533 U.S. 27, 40 (2001).

Kyllo's preference for drawing a firm and bright line at the entrance to the house is equally applicable in *McArthur*: Absent exigent circumstances, police officers should not be allowed to disturb an individual's right "to be secure" in his home without a warrant. Although both cases involve the sanctity and security of a private home, the choice to employ a *per se* rule in *Kyllo* and a balancing test in *McArthur*, is not explained by the Court nor deciphered by examining the Court's relevant precedents.

C. Kyllo*'s Emphasis on the Home*

The third and final reason to question *Kyllo*'s long-term impact for protecting Fourth Amendment rights, ironically, concerns *Kyllo*'s strongest feature: its emphasis on the home.[291] The driving force of Justice Scalia's opinion was that a thermal imager discloses information regarding the interior of a home.[292] While Justice Scalia willingly conceded that the challenged intrusion in Kyllo's case involved an insignificant compromise of a homeowner's privacy,[293] that fact was unimportant. The trivial nature of the intrusion was irrelevant because—from the Founder's era to modern times—private homes have been protected against warrantless police searches. Thus, Scalia explained that the Court "must take the long view, from the original meaning of the Fourth Amendment forward."[294] This meant that a search warrant was required before police could utilize a thermal imager to determine the relative heat that was emanating from Kyllo's home.[295]

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[291] In his article on *Kyllo*, Professor Seamon describes *Kyllo* as an important case and also highlights the Court's emphasis on the home. *See* Richard H. Seamon, Kyllo v. United States *And the Partial Ascendance of Justice Scalia's Fourth Amendment*, 79 WASH. U.L.Q. 1013 (2001). According to Professor Seamon, *Kyllo* is a significant ruling, in part, "because it reinforces the narrowing of the once broad warrant presumption in two ways. First, by departing from the reverse *Katz* test [the tendency by the Court to find that government conduct is not a search for Fourth Amendment purposes], *Kyllo* may block future resort to that test as a means of shoring up the illusion of a broad warrant presumption. Second, *Kyllo* articulates the new, narrow version of the presumption, under which the warrant requirement applies most stringently to searches of the home." *Id.* at 1029. Although Professor Seamon generally applauds the result in *Kyllo*, a student commentator calls *Kyllo* "a dangerous opinion" because Justice Scalia:

> has crafted an opinion that moves the Court even further in reverse, back toward a Fourth Amendment jurisprudence based on place. And the only place that Justice Scalia appears to believe that warrants full protection is the interior of the home. The test he develops for whether government use of a technology constitutes a search offers little to no protection to information generated by new technologies.

Andrew Riggs Dunlap, *Fixing the Fourth Amendment with Trade Secret Law: A Response to* Kyllo v. United States, 90 GEO. L.J. 2175, 2176 (2002). According to Dunlap, *Kyllo*'s "reasoning should produce alarm" because it embraces "a view of the Fourth Amendment that buckles and gives way once a citizen, or his or her information, passes outside the home." *Id.* at 2187, 2189-90. While I agree that in future cases the Court is likely to read *Kyllo*'s holding narrowly, there is noting in *Kyllo* itself that demands this narrow interpretation.

[292] *Kyllo*, 533 U.S. at 35 n.2 ("A thermal imager reveals the relative heat of

To a certain extent, *Kyllo*'s emphasis on the home is understandable. There are textual, historical and practical reasons why the Court's Fourth Amendment jurisprudence has afforded the home special protection. *Kyllo* continues this trend, notwithstanding the limited information that the thermal imaging revealed. Practically speaking, however, giving special protection to the home, but reduced or no protection to other areas, may be short-sighted, particularly if the Court is concerned about technological advances that intrude upon privacy. As Justice Stevens suggested, if sense-enhancing technology gives the government "the functional equivalent of access to a private place," then the reach of the Fourth Amendment protective umbrella should not be confined to the home.[296] Although the facts in *Kyllo* did not require the Court to discuss how its analysis might affect other areas and places entitled to constitutional protection, *Kyllo*'s stress on the home may provide a distinguishing point in future cases where the Court has to judge the use of thermal imaging or similar sense-enhancing equipment directed at targets other than houses. If the Court's past precedents are predictive of future results, the odds are good that

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various rooms in the home. The dissent may not find that information particularly private or important, but there is no basis for saying it is not information regarding the interior of the home.") (citations omitted).

[293] *Id.* at 40.

[294] *Id.*

[295] *Id.*; *see also* David O. Markus & Mona Markus, *The Heat is On: Thermal Imaging and the Fourth Amendment*, THE CHAMPION Dec., 1998, at 22-24 (pre-*Kyllo* article arguing that the use of thermal imaging requires a judicial warrant).

[296] *Kyllo*, 533 U.S. at 48 (Stevens, J., dissenting) (citation omitted).

Kyllo's protective reach will be confined to the home. Indeed, the facts and holding of *United States v. Karo*[297]—another case involving electronic surveillance—reveals the limits of a judicial analysis focused on the home and may provide the template for limiting *Kyllo*.

In *Karo*, federal drug agents learned that the defendants had ordered several gallons of ether in order to extract cocaine from clothing that had been imported into the country. The agents placed an electronic beeper in a can of ether that was sold to the defendants.[298] Over a four month period, using both visual and electronic surveillance, the agents tracked the beeper as it arrived and left several private homes and two commercial storage facilities. Finally, the agents obtained a search warrant for a private residence where the beeper-laden can was located. Inside that home, they found cocaine.[299] Two issues confronted the Court: First, whether installation and transfer of the beeper-laden can to a buyer unaware of the beeper's presence triggered Fourth Amendment protection.[300] Second, whether monitoring of the beeper was a search when it revealed information that could not have been obtained through visual surveillance.[301] On the second issue, *Karo* ruled that "monitoring of a beeper in a private residence, a location not open to visual surveillance, violates the Fourth Amendment rights of those who have a justifiable interest in the privacy of the residence."[302]

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[297] 468 U.S. 705 (1984).

[298] The agents received a warrant for the installation and transfer of the beeper-laden can, but that warrant was later invalidated for misleading statements in the affidavit. *Karo*, 468 U.S. at 719 n.5.

[299] *Id.* at 708-10.

[300] *Id.* at 712.

[301] *Id.* at 714. On the first issue, *Karo* ruled that installation and transfer of the beeper-laden can was neither a search nor seizure. *Id.* No search occurred because the transfer of an unmonitored beeper "conveyed no information at all. To be sure, it created a *potential* for an invasion of privacy, but we have never held that potential, as opposed to actual, invasions of privacy constitute searches. . . ." *Id.* at 712. No seizure occurred either: "Although the can may have contained an unknown and unwanted foreign object, it cannot be said that anyone's possessory interest was interfered with in a meaningful way." *Id.*

[302] *Id.* at 714. The Court explained that beeper monitoring reveals "that a particular article is actually located at a particular time" in a home. *Id.* at 715.

Seven Justices in *Karo* agreed that monitoring a beeper in a private home constitutes a search.[303] The Court was split, however, over whether monitoring the beeper to determine that it was located somewhere in a storage facility constituted a search. Writing for the majority, Justice White explained that no search occurred because the beeper disclosed only that the can was "somewhere in the warehouse."[304] The monitoring did not "identify the specific locker" which contained the beeper-laden can.[305] Nor did the monitoring reveal anything about the "contents" of the locker the defendants had rented.[306] Justice Stevens, however, took issue with this conclusion. He noted the agents were unaware of the beeper's location after its initial entrance into a private home. "From that moment on it was

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"Even if visual surveillance has revealed that the article to which the beeper is attached has entered the house, the later monitoring not only verifies the officers' observations but also established that the article remains on the premises." *Id.* at 715.

[303] *Id.* at 721. Justice O'Connor, with Justice Rehnquist joining her, stated that "the mere presence of electronic equipment inside a home, transmitting information to governments agents outside, does not, in and of itself, infringe on legitimate expectations of privacy of all who have an expectation of privacy in the home itself." *Id.* at 722 (O'Connor, J., concurring). She relied on *White*, which permitted the use of information obtained from within a home by means of a microphone secreted on a government agent. *Id.* In O'Connor's view, the crucial question in *Karo* is the defendant's interest in the container in which the beeper is placed. *Id.* at 724. "When a closed container is moved by permission into a home, the homeowner and others with an expectation of privacy in the home itself surrender any expectation of privacy they might otherwise retain in the movements of the container-unless it is *their* container or under *their* dominion or control." *Id.* (footnote omitted). According to Justice O'Connor, the beeper "transmitted information about the *location*, not the contents, of the container . . . . By giving consent to another to move a closed container into and out of the home the homeowner has effectively surrendered his privacy insofar as the location of the container may be concerned, or so we should assume absent evidence to the contrary. In other words, one who lacks dominion and control over the object's location has no privacy interest invaded when that information is disclosed." *Id.* at 727.

[304] *Id.* at 720.

[305] *Id.*

[306] *Id.* After the beeper monitoring revealed that the can was located in the storage facility, the locker containing the beeper-laden can was "identified only when agents traversing the public parts of the facility found that the smell of ether was coming from a specific locker." *Id.* at 720-21.

concealed from view."[307] The agents discovered the beeper's location in the storage facility by electronic surveillance.[308] "Without the beeper, the agents would have never found the warehouse . . . ."[309] Thus, Stevens concluded that because the monitoring "enabled the agents to learn the location of personal property otherwise concealed from public view," it was a search.[310]

The contrasting opinions of Justices White and Stevens illustrate the limits of a judicial analysis that emphasizes the home. According to the *Karo* majority, police may use electronic beeper surveillance free of constitutional scrutiny provided the monitoring discloses only "the general vicinity, and not the precise private location, of the [beeper]."[311] Justice White's judgment that "general vicinity" monitoring is not a search might not bother an agoraphobe, but it is an odd way to construe the Fourth Amendment, which protects other places and effects beside houses. Justice White is understandably concerned that "[i]ndiscriminate monitoring of property that has been withdrawn from public view would present far too serious a threat to privacy interests in the home to escape entirely some sort of Fourth Amendment oversight."[312] But does the exact same "[i]ndiscriminate monitoring of property that has been withdrawn from public view" not present a similar serious threat to privacy interests when that surveillance reveals that property is located at a commercial storage facility, college campus or hotel resort? The fact that the indiscriminate monitoring did not identify the specific locker containing the property is beside the point. "The property was concealed from public view; its location was a secret and hence by revealing its location the beeper infringed an expectation of privacy."[313] Under Justice White's view, police are free to install covert electronic tracking devices on any item available for commercial purchase, for example, a book, suitcase or rental car. If later monitoring reveals that the property is located at a certain hotel resort or on a particular college campus, no search occurs provided the monitoring does not identify the specific room in which a person is staying.[314]

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[307] *Karo*, 468 U.S. at 735 (Stevens, J., dissenting).

[308] *Id.*

[309] *Id.* at 735 n.11.

[310] *Id.* at 734-35.

[311] Fishman, *supra* note 160, at 342.

[312] *Karo*, 468 U.S. at 716 (footnote omitted).

[313] *Id.* at 735, n.11 (Stevens, J., dissenting).

It may be possible in future cases to distinguish the thermal imaging directed at a home from thermal imaging directed at an office or other business facility.[315] Similarly, the Court may treat thermal imaging or other scientific searches of vehicles differently from the search in *Kyllo*.[316] Automobiles are entitled to a lesser degree of privacy than that given to houses. Therefore, a thermal imaging "search" or similar intrusion directed at a vehicle might not trigger Fourth Amendment protection, even though the intrusion reveals information "that would previously have been unknowable without [a] physical intrusion."[317] By combining the Court's judgment that vehicles are afforded diminished privacy protection, *Karo*'s conclusion that general vicinity monitoring is not a search, and *Kyllo*'s emphasis on the home, an analytical framework emerges that permits the Court to find that thermal imaging of targets other than houses does not implicate the Fourth Amendment.

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[314] *See* Fishman, *supra* note 160, at 345. Professor Fishman recognizes that under *Karo*'s logic,

> it would appear that so long as the monitoring does not disclose conclusively which of two or more private locations (houses, hotel rooms, lockers, automobile trunks, or whatever) contains the beepered object, monitoring the beeper does not constitute a search. Such a rule would significantly diminish the privacy-enhancing impact the Court's holding in *Karo* that private location monitoring constitutes a search.

Fishman, *supra* note 160 at 345 (footnotes omitted). Interestingly, Professor Fishman criticizes Justice Stevens' conclusion that a search occurred when the agents in *Karo* utilized monitoring to determine that the beeper-laden can was located somewhere in the storage facility. According to Professor Fishman, this view "sweeps too broadly." Fishman, *supra* note 160, at 342. Professor Fishman explains:

> Had the agents maintained visual surveillance of the first storage facility, they *could have* observed the suspects transfer the ether from the first to the second warehouse. Further, upon learning that the ether had been removed from the first facility, the agents *could* have interviewed personnel at every other storage facility in Albuquerque until, *with luck* they found the warehouse in question. Alternatively, *in theory*, an informer *might have* learned of the ether's new location and reported it to the authorities. Any of these techniques would have "enabled the agents to learn the location of property otherwise concealed from public view," yet none of them would have "infringed upon a privacy interest protected by the Fourth Amendment." Why should using a beeper, to determine only the general vicinity to which the ether had been moved, be regarded differently? Justice Stevens enunciates no persuasive reason.

Fishman, *supra* note 160, at 342-43 (emphasis added). Professor Fishman's criticism of Justice Stevens resembles the reasoning of *Knotts*. In *Knotts*, the Court concluded that because officers "*could have*" observed the defendant as he traveled across the highways of Minnesota and Wisconsin, the Fourth Amendment does not bar the use of electronic surveillance equipment to allow the police to do the same. United States v. Knotts, 460 U.S. 276, 285 (1983) (emphasis added). The problem with both *Knotts*'s reasoning and Professor Fishman's analysis is that they each prove too much. As noted earlier, *see* notes 164-74 and accompanying text, one can always imagine methods in which police are able to detect useful information.

[315] In recent years, the Court has authorized warrantless and suspicionless

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searches of business offices and other premises on the basis of grounds that would not allow searches of homes. *See, e.g.,* New York v. Burger, 482 U.S. 691 (1987) (upholding warrantless, suspicionless search of automobile junkyard business on "special needs" theory); O'Connor v. Ortega, 480 U.S. 709 (1987) (searching of government employee's office assessed under "special needs" model; validity of the search "should be judged by the standard of reasonableness under all the circumstances"); *but cf.* Marshall v. Barlow's Inc., 436 U.S. 307 (1978) (invalidating warrantless search of business).

[316] *See, e.g.*, Dery, *supra* note 242, at 403. Professor Dery describes the many uses of the Enclosed Space Detection System (ESDS).

> The ESDS, or heartbeat detector, is a surveillance tool designed to detect the presence of people 'hiding in enclosed spaces of vehicles' by identifying the presence of a 'human ballistocardiogram.' With each beat of the human heart, a ballistocardiogram or a small mechanical shock wave propagates through the body. This shock wave, in turn, causes the entire vehicle holding the person to vibrate 'at a frequency dissimilar from any other source.'

Dery, *supra* note 21, at 653 (footnotes omitted).

[317] Kyllo v. United States, 533 U.S. 27, 40 (2001). *Karo*'s holding does not resolve whether electronic detection of an item concealed inside a vehicle constitutes a search. Professor LaFave explains that there is some "uncertainty" about the scope of *Karo*'s reach. LAFAVE, *supra* note 21, at 653. (noting that the Court initially frames the issue in broad terms as to "whether the monitoring of a beeper [is a search] when it reveals information that could not have been obtained through visual surveillance," but later in its opinion narrowly frames the issue as to "whether the monitoring of a beeper in a *private residence*, a location not open to visual surveillance" is a search) (emphasis added). According to Professor LaFave, *Karo* could be read to mean that beeper surveillance that reveals that a container is concealed inside a vehicle or other private location still amounts to a search, even though the surveillance is not directed at a private residence. LAFAVE, *supra* note 21, at 653.

In sum, *Kyllo* is an important ruling that expands Fourth Amendment protection. But *Kyllo*'s impact on future cases involving the Fourth Amendment and technology, beyond its limited fact pattern, is uncertain. If *Karo*'s reasoning on general vicinity monitoring is followed in future cases, the holding of *Kyllo* is unlikely to prevent government officers from using sophisticated technology to monitor or reveal information that is otherwise not exposed to public view.

IV. CARNIVORE MEETS *KYLLO*

As noted above, *Kyllo*'s long-term impact on search and seizure doctrine is uncertain. On the one hand, *Kyllo* may provide significant protection against future technological intrusions. In addition to reaffirming the principle that Fourth Amendment protection does not require a physical intrusion into the home—a rule often ignored in previous cases involving technological intrusions—*Kyllo* also rejected the claim that disclosure of intimate details was necessary before a government intrusion would be deemed a search.[318] After *Kyllo*, *all* details regarding the interior of the home are constitutionally protected "because the entire area is held safe from prying governmental eyes."[319]

On the other hand, *Kyllo*'s protective impact may be blunted in future cases. *Kyllo*'s logic undercuts the holding in *Smith v. Maryland* and suggests that a dog sniff of a home is a search notwithstanding the contrary implication coming from *Place*. In light of the tension between *Kyllo* and these cases and because the Court is unlikely to overrule *Smith* or limit the logic of *Place* to luggage and automobiles, *Kyllo*'s holding may be confined to thermal imaging intrusions. Moreover, there is nothing in the *Kyllo* opinion that commits the Court to using "bright line" rules in future cases involving technological intrusions affecting the home. Finally, because *Kyllo* emphasized the traditional protection afforded private homes, it will be easy to distinguish *Kyllo* where technological intrusions do not target houses. Logically, the rule announced in *Kyllo* should "protect individuals from the overly intrusive use of sense-enhancing equipment" in other areas entitled to constitutional protection.[320] Yet, if the analysis of *Karo*—which *Kyllo* cites approvingly—is followed in future cases, *Kyllo*'s holding will not cover sense-enhancing equipment that reveals private information in protected areas outside of houses.

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[318] *Kyllo*, 533 U.S. at 38.

[319] *Id.* at 37.

A possible test of *Kyllo*'s strength (or weakness) may come soon. The Court has not addressed the constitutional status of e-mail communications, and lower court rulings on the subject are sparse.[321] Normally, the Court is reluctant to address an issue that has not been percolating in the lower courts.[322] However, the constitutional questions surrounding Carnivore, the Federal Bureau of Investigation's controversial Internet surveillance program, may require the Court to address the constitutional status of e-mail communications coming from a home computer. If such a case arises, the Court may be confronted with a conflict between *Kyllo*'s holding and the government's claim that certain applications of Carnivore do not constitute searches under the Fourth Amendment.[323]

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[320] *Id.* at 48 (Stevens, J., dissenting).

[321] *See* Peter J. Georgiton, *The FBI's Carnivore: How Federal Agents May Be Viewing Your Personal E-Mail and Why There Is Nothing You Can Do About It*, 62 OHIO ST. L.J. 1831, 1838 (2001) (noting that the Court has not determined whether there is a "reasonable expectation of privacy in our personal home e-mail accounts, and there is little case law directed to the issue as well").

[322] *See* SUP. CT. R. 10; ROBERT L. STERN ET AL., SUPREME COURT PRACTICE 228 n.18 (8th ed. 2002) ("In some cases the Justices may feel that the time is not ripe for the Court to resolve a conflict, preferring to await further litigation that might produce a consensus or a satisfactory majority view among the lower courts."); *id.* at 230 (quoting Gilliard v. Mississippi, 464 U.S. 867 (1983) (Marshall, J., dissenting from denial of certiorari)) (addressing "'those of my Colleagues who agree with me [on merits of issue] but believe that this Court should postpone consideration of the issue until more state supreme courts and federal circuits have experimented with substantive and procedural solutions to the problem'").

[323] *See Fourth Amendment Issues Raised by the FBI's "Carnivore" Program: Hearing Before the House Subcomm. on the Constitution, House Comm. on the Judiciary*, 106th Cong. (2000) [hereinafter House Hearing] (statement of Donald M. Kerr, Assistant Director, Federal Bureau of Investigation) ("We do, in fact, have legal authority to do what we are doing today, and I think it is because of the correct belief, from my perspective, that the addressing information on the Internet is, in fact, a useful and appropriate analog to the telephone number in

The exact contours and capabilities of Carnivore are still subject to debate.[324] Briefly stated, Carnivore is a computer-based search program that allows the FBI to intercept electronic communications that travel on the internet.[325]

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the switch circuit world."); *The 'Carnivore' Controversy: Electronic Surveillance and Privacy in the Digital Age: Hearing Before the Senate Comm. on the Judiciary*, 106th Cong. (2000) [hereinafter Senate Hearing] (statement of Kevin DiGregory, Deputy Associate Attorney General Department of Justice) ("We don't think that there should be a different standard for the interception of e-mails versus the interception of telephones—excuse me; I used the word "interception"—for a pen register or a trap and trace for e-mails as opposed to a pen register or trap and trace for telephones.").

[324] *See* Maricela Segura, Note, *Is Carnivore Devouring Your Privacy?*, 75 S. CAL. L. REV. 231, 233 (2001) (noting that even "after independent review of Carnivore, questions linger about the program's actual capabilities").

[325] For a comprehensive description of Carnivore, *see* ILLINOIS INSTITUTE OF TECHNOLOGY RESEARCH INSTITUTE, *Independent Review of the Carnivore System, Final Report* (Dec. 8, 2000, at vii, *available at* http://www.usdoj.gov/jmd/ publications/carniv_final.pdf ("Carnivore is a soft-ware based tool used to examine all Internet Protocol (IP) packets on an Ethernet and record only those packets or packet segments that meet very specific parameters.") [hereinafter IITRI REPORT]; *see also* Ku, *supra* note 1, at 1355 ("Like an information roadblock, [Carnivore] screens all traffic, but pulls over only the data packets it has been programmed to capture."); Trenton C. Haas, Note, *Carnivore and the Fourth Amendment*, 34 CONN. L. REV. 261, 271 (2001) ("Carnivore is an Internet surveillance system or diagnostic tool, which—when equipped with special filtering software—gathers informational packets traveling over a network."); Neil King Jr. and Ted Bridis, *FBI's Wiretaps To Scan E-Mail Spark Concern*, WALL ST. J., July 11, 2000, at A3 (describing Carnivore as "[e]ssentially a personal computer stuffed with specialized software, Carnivore represents a new twist in the federal government's fight to sustain its snooping powers in the Internet Age. [Carnivore] can scan millions of e-mails in a second. . ."); Ted Bridis and Neil King Jr., *Carnivore E-Mail Tool Won't Eat Up Privacy, Says FBI*, WALL ST. J., July 20, 2000, at A28 ("The system belongs to a class of tools known as 'packet filters' or 'sniffers,' which look for parcels of data that travel across a network and compromise an e-mail or a visit to a Web site. Using a Windows screen, Carnivore also can be set to capture file downloads and chat-room conversations. It can grab e-mail from the most popular Web-based companies, including Yahoo! Inc. and Microsoft Corp.'s Hotmail. And once it is installed at an Internet service provider, the FBI can dial into Carnivore to make changes and monitor data that have been collected."). The IITRI's REPORT on Carnivore, which was intended to address the complaints of civil libertarians and computer privacy advocates, was criticized by another group of experts. *See* Haas, *supra* note at 276 (explaining that "a five member team of renowned researchers and academicians" selected by the chief scientist at the Justice Department "harshly criticized the IITRI's review for what they considered 'continued' and 'serious concerns relating to Carnivore's system.'") (footnotes omitted).

> [Carnivore] enables the FBI to conduct a one-way tap into an Ethernet stream—the flow of electronic impulses carrying communications through an internet connection. This method allows investigators to search out keywords, e-mail addresses or internet protocol ("IP") addresses—a series of numbers and letters that correlate to websites. Carnivore can conduct at least two types of searches. First, installed on an ISP's [internet service provider] network, Carnivore can monitor and record the full content of messages that a targeted user has sent in real-time. This real-time, full-content search is conducted under the same basic legal structure that is employed for telephone wiretaps. Second, Carnivore is reportedly able to acquire the address information for the origin and the destination of all communications to and from a particular ISP customer. This function provides the TO and FROM addresses on an e-mail and is viewed as the electronic equivalent of a telephone pen-register or trap and trace search.[326]

The following law review articles have assisted me in understanding how Carnivore works, and have helped to identify the federal statutes that control various applications of Carnivore to electronic communications. Anthony E. Orr, Note, *Marking Carnivore's Territory: Rethinking Pen Registers on the Internet*, 8 MICH. TELECOMM. & TECH. L. REV. 219 (2002); Peter J. Georgiton, Note, *The FBI's Carnivore: How Federal Agents May Be Viewing Your Personal E-Mail and Why There Is Nothing You Can Do About It*, 62 OHIO STATE L. J. 1831 (2001); Trenton C. Haas, *Carnivore and the Fourth Amendment*, 34 CONN. L. REV. 261 (2001); Manton M. Grier, Jr., *The Software Formerly Known As "Carnivore": When Does E-Mail Surveillance Encroach Upon a Reasonable Expectation of Privacy?*, 52 S.C. L. REV. 875 (2001); Frank J. Eichenlaub, *Carnivore: Taking a Bite Out of the Fourth Amendment*, 80 N.C. L. REV. 315 (2001); Maricela Segura, Note, *Is Carnivore Devouring Your Privacy?*, 75 S. CAL. L. REV. 231 (2001); Thomas R. McCarthy, *Don't Fear Carnivore: It Won't Devour Individual Privacy*, 66 MO. L. REV. 827 (2001); Peter J. Young, *The Case Against Carnivore: Preventing Law Enforcement from Devouring Privacy*, 35 IND. L. REV. 303 (2001); Sandy D. Hellums, *Bits and Bytes: The Carnivore Initiative and the Search and Seizure of Electronic Mail*, 10 WM. & MARY BILL RTS. J. 827 (2001); Matthew Mickle Werdegar, *Lost? The Government Knows Where You Are: Cellular Telephone Call Location Technology and the Expectation of Privacy*, 10 STAN. L. & POL'Y REV. 103 (1998); Raphael Winick, *Searches and Seizures of Computers and Computer Data*, 8 HARV. J. L. & TECH. 75 (1994) (pre-Carnivore article discussing the constitutional and statutory issues surrounding stored and transmitted computer data). For a comprehensive and insightful article on the interplay between Fourth Amendment protection and various statutes designed to protect informational privacy, see Daniel J. Solove, *Digital Dossiers and the Dissipation of Fourth Amendment Privacy*, 75 S. CAL. L. REV. 1803 (2002).

[326] Segura, *supra* note 325, at 234 (footnotes omitted). A "trap and trace"

This final section will examine what impact *Kyllo*'s holding will have for the second type of intercept Carnivore performs—its "pen mode"[327] application. Specifically, has a search under the Fourth Amendment occurred when the FBI employs Carnivore to intercept and record the routing and addressing information of e-mails sent from home computers?

A. *Is E-mail Addressing Information Comparable To Telephone Numbers?*

Justice Department officials have told members of Congress that *Smith v. Maryland* authorizes federal agents to use Carnivore's pen mode application without triggering Fourth Amendment protections.[328] According to this interpretation,

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search occurs when an electronic device is installed to "capture[ ] the incoming electronic or other impulses which identify the originating number" of an instrument or device from which a wire or electronic communication was transmitted. 18 U.S.C. § 3127(4) (1994). As another commentator has noted, the FBI "describes Carnivore as something of a magic wand, which, when 'waved' over large volumes of e-mail, can be used to identify and separate targeted e-mails from non-targeted messages without violating the rights of those who use e-mail for lawful purposes." Eichenlaub, *supra* note 325, at 317.

[327] Under the "pen mode" or pen register mode, Carnivore "can collect header information such as the 'TO:' and 'FROM:' addresses from e-mails and the IP addresses of computers in FTP [File Transfer Protocol] or HTTP [Hypertext Transfer Protocol] transactions." Orr, *supra* note 325, at 223 (footnote omitted); *see also*, Georgiton, *supra* note 325, at 1842 (noting that "Carnivore can be set to retrieve only information concerning where an outgoing e-mail was sent, where an incoming e-mail was sent from, and the e-mail address itself") (footnote omitted); IIITRI REPORT, *supra* note 325 at ix ("In pen mode, the operator can see the TO and FROM e-mail addresses and the IP addresses of computers involved in File Transfer Protocol (FTP) and Hypertext Transfer Protocol (HTTP) sessions.").

[328] *See House Hearing*, *supra* note 323 (statement of Kevin DiGregory, Deputy Associate Attorney General Department of Justice) (responding to a question from Representative Jerrold Nadler that this information could be obtained without probable cause, DiGregory stated: "That's correct, and I want to point out to you that the Supreme Court held in *Maryland v. Smith*, I believe in 1979, that there was no reasonable expectation of privacy in numbers dialed by a telephone because essentially, when someone turns over information to a third part like the telephone company, they should not have either a subjective or an objective reasonable expectation of privacy in that information"). In responding to a question from Senator Leahy, which essentially asked if the use of Carnivore crossed the lines established in *Smith v. Maryland*, Donald Kerr responded:

> [W]e believe that such URL information is essentially identical to a tele-

federal agents "use Carnivore to conduct pen register searches because they believe that the addresses found in the TO and FROM lines of an e-mail are the electronic equivalent of the numbers dialed on a telephone."[329] Under *Smith*'s reasoning, a telephone pen register is not a search because a pen register "do[es] not acquire the *contents* of communications"[330] and because a telephone user has no reasonable expectation of privacy in the numbers dialed. By using his telephone and voluntarily conveying numerical information to the telephone company, a homeowner "assume[s] the risk that the company would reveal to police the numbers he dialed."[331]

The Justice Department's view that *Smith* authorizes application of Carnivore's pen mode without implicating Fourth Amendment safeguards has not been fully tested in the federal courts.[332] As one commentator has noted, "[n]o court has taken the inferential step and applied the *Smith* rule regarding the apprehension of telephone numbers to the apprehension of

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> phone number within a telephone networks that a criminal may dial. Thus, it is worth noting that a Carnivore-based pen register would provide the FBI with virtually the same information as a telephone pen register would, i.e., the telephone number dialed by the criminal subject reflecting that a communication to XYZ Corp. had occurred. No "content" information (substance, purport or meaning) is gleaned from either type of pen register as to the nature of the call.

Senate Hearing, *supra* note 323 (statement of Donald M. Kerr, Assistant Director, Federal Bureau of Investigation).

[329] Segura, *supra* note 325 at 262 (footnote omitted); *see also* Georgiton *supra* note 325 at 1842 ("The FBI contends that, consistent with *Smith*, they can retrieve [information concerning where an outgoing e-mail was sent, where an incoming e-mail was sent from, and the e-mail address itself] without need for a warrant.") (footnote omitted).

[330] Smith v. Maryland, 442 U.S. 735, 741 (1979).

[331] *Smith*, 442 U.S. at 744.

[332] *See generally* Haas, *supra* note 325, at 281-84 (summarizing federal appellate court rulings finding that persons were not entitled to Fourth Amendment protection when using internet systems privately maintained by their employer or where the government seized messages found on a chat room that was open to the public, and explaining that these rulings "are considerably different from a situation involving the use of Carnivore by the FBI to intercept Internet e-mail messages from one individual to another"). United States v. Maxwell, 45 M.J. 406 (C.A.A.F. 1996), which one commentator described as "[t]he leading case addressing the issue of privacy in personal e-mail accounts," *see* Georgiton, *supra* note 325, at 1839, did not consider the status of e-mail addressing information.

e-mail addresses through electronic surveillance."[333] But this same writer also acknowledged that federal judges have not been eager to include e-mail addressing information under the Fourth Amendment's protective scope. Federal judges "while not explicitly considering whether a person has a reasonable expectation of privacy in the addressing information for their e-mail, have been largely reluctant to consider anything beyond the content of electronic communications in their *Katz* (reasonable expectation of privacy) analysis."[334]

Although the lower federal courts have not yet endorsed the Justice Department's position that application of Carnivore's pen mode to e-mail messages sent by or to home computers is authorized by *Smith*, academic commentators have reached divergent conclusions on the constitutionality of Carnivore's pen mode intercept. As an initial matter, several writers have acknowledged the uncertainty of *Smith* as applied to e-mail addressing information. For example, one student commentator acknowledges that the "language of *Smith v. Maryland* makes it difficult to conclude definitively whether Internet users hold any reasonable expectation of privacy in e-mail addressing information."[335] Nevertheless, this writer concludes that e-mail users do not have a constitutionally protected interest in e-mail addressing information. E-mail users have no subjective expectation of privacy because "they certainly know that addressing information is being 'conveyed' to their ISP, if for no other reason than to route their messages to the proper destination."[336] Moreover, because e-mail messages are typically stored on an ISP's computer equipment both before and after the recipient receives the message, users "know ISP's possess 'facilities for recording' e-mail addressing information."[337] This writer also contends that no objective expectation of privacy exists in e-mail addressing information because the assumption of risk rule of *Smith* covers such information. Just as a person assumes the risk that the phone company will reveal to the police the numbers he dialed from his home telephone, a computer user assumes a similar risk by voluntarily conveying e-mail addressing information to an internet service provider. "A Carnivore installation on the ISP network simply facilitates this 'revelation' by the ISP."[338]

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[333] Georgiton, *supra* note 325, at 1843. *But cf.*, Haas, *supra* note 325, at 289 (describing an unreported and sealed ruling of a United States Magistrate which "concluded that the FBI's proposed activities to intercept e-mail information was the function equivalent of capturing telephone numbers with a pen register or trap and trace device") (footnote omitted).

[334] Georgiton, *supra* note 325, at 1843 (footnote omitted). Although reported rulings on the constitutional status of e-mail addressing information have been rare, federal courts have often rejected claims that e-mail users' subscriber information is entitled to Fourth Amendment protection. Subscriber information typically includes an internet user's name; billing address; home, work, and fax numbers; and other billing information that is given to an internet service provider. Several federal courts, relying on *Smith*, have ruled that this information is not entitled to Fourth Amendment protection because individuals have no legitimate privacy interest in the account/subscriber information given to the ISP to establish an e-mail account. *See, e.g.*, Guest v. Leis, 255 F. 3d 325, 336-37 (6th Cir. 2001); United States v. Hambrick, No. 99-4793, 2000 WL 1062039, at *11-12 (4th Cir. Aug. 3, 2000); United States v. Cox, 190 F. Supp. 2d 330, 333 (N.D. N.Y. 2002); United States v. Kennedy, 81 F. Supp. 2d 1103, 1110 (D. Kan. 2000).

[335] Orr, *supra* note 325, at 226; *see also* Haas, *supra* note 325, at 290 ("At the outset, this Comment sought to establish whether Carnivore violated the Constitution's Fourth Amendment. Yet, after analyzing the issue, a yes or no

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answer is simply not possible. The issue is far more complex."); Segura, *supra* note 325, at 258 (noting that "there remains a constitutional question as to whether there is an expectation of privacy in e-mail, or whether it is a transactional record in the hands of a third party"); Georgiton, *supra* note 325, at 1842 (noting that *Smith*'s holding "*suggests* that the FBI does not need a warrant in order to get the addressing information from someone's e-mail account") (emphasis added). *See also* ROSEN, *supra* note 178 at 70-78. Professor Rosen notes:

> Personal e-mail poses something of a constitutional puzzle: on the one hand, it sometimes originates from work, which is not a place that the Fourth Amendment reserves for special constitutional protection; on the other hand, it seems analytically similar to a private letter, which is one of the 'papers' at the historical core of the Fourth Amendment.

Id. at 70.

[336] Orr, *supra* note 325, at 227.

[337] Orr, *supra* note 325, at 227, quoting Smith v. Maryland, 442 U.S. 735, 743 (1979).

[338] Orr, *supra* note 325, at 229. Another commentator has analogized e-mail addressing information to a traditional mail cover, which is not a search under the Fourth Amendment. Megan Connor Berton, *Home Is Where Your Modem Is: An Appropriate Application of Search and Seizure Law to Electronic Mail*, 34 AM. CRIM. L. REV. 163, 191-92 (1996) ("Just as senders of first class mail have little expectation of privacy in the information written or displayed on the outside of an envelope, e-mail users have little expectation of privacy in the address portion of their communications. This information is needed to deliver the message and, though often done solely by computer and without exposure to a human eye other

Other academic commentators have sought to distinguish *Smith* by arguing that disclosure of e-mail addressing information reveals more information than a telephone pen register. *Smith* emphasized the "limited capabilities" of a pen register,[339] which, unlike a wiretap, had no capacity to disclose the content of a caller's communications. Carnivore's pen mode, by contrast, can reveal more information than a traditional pen register.

> Carnivore can be set to gather lists of the individuals a computer user has sent e-mail to and received e-mail from, lists of the computers the user has transferred files with, and lists of computers/web-servers accessed by the user in the course of surfing the Internet. These types of addressing information reveal much more than a telephone number does.[340]

Similarly, some legal commentators have also rejected the argument that e-mail addressing information is not entitled to constitutional protection because e-mail users knowingly con-

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than the recipient's, it is understood that any problems with the address causing difficulty in delivery may be noted by the system operator.").

[339] *Smith*, 442 U.S. at 742.

[340] Georgiton, *supra* note 325, at 1845-46; *see also* Segura, *supra* note 325, at 252 (arguing that the rationale supporting *Smith* is inapplicable in the electronic context "because e-mail addresses often do reveal the individuals involved in the communication, whether the address is a derivation of the individual's name, or the full name in parenthesis after the address"); Segura, *supra* note 325, at 262 (noting that "e-mail addresses often reveal the parties who are writing one other, and there is usually no question about whether the message was completed, as it is instantaneously sent to an internet mailbox") (footnote omitted); Chris J. Katopis, *"Searching" Cyberspace: The Fourth Amendment and Electronic Mail*, 14 TEMP. ENVTL. L & TECH. J. 175, 199 (1995) (arguing that "where a pen register and trap and trace device only reveal a telephone number, clearly much more information is obtained by analyzing the header of e-mail. The header is a portion of the transmission that does contain content"); *cf.*, Orr, *supra* note 325, at 231 (conceding that "it appears e-mail addressing information often does reveal more about the identity of the sender and receiver than the ten simple digits of a telephone number," but concluding "it is *unclear* whether e-mail addresses really reveal that much more about the identity of message senders and recipients") (emphasis added); Skok, *supra* note 25, at 75-79 (arguing that, although Web users reveal clickstream data to third parties, *Smith*'s assumption of risk theory should not apply to clickstream data because the clickstream reveals "a record of a person's cyberspace activity, [which] allows officers to entirely recreate an online experience").

vey that information to a third party. They argue that *Smith*'s assumption of risk rule should not apply to electronic communications because ISP employees sign employment agreements promising not to read or disclose private e-mail, and federal law does not authorize such disclosure.[341] Under this view, e-mail users "should have an [objective] expectation of privacy in their electronic communication, even if saved on a remote server."[342]

Given the logic of *Smith*, the Court is unlikely to recognize a constitutional difference between e-mail addressing information and the information that a telephone pen register reveals. Like a traditional pen register, Carnivore's pen mode does not disclose the content of e-mail messages.[343] To be sure,

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[341] *See* Segura, *supra* note 325, at 253; *cf.*, 1 LAFAVE, *supra* note 21, § 2.6 at 120 (noting arguments that "'computer operators have no legitimate purpose in reading records unrelated to the operator's function, just as the telephone company has no legitimate purpose in listening to the contents of conversations,' and thus the user *does* have a legitimate expectation of privacy as to 'the contents of electronic mail messages or personal files.' This is so even when the system manager makes backup copies of such records, and even when the users are all employees of the system operator.") (footnotes omitted).

[342] Segura, *supra* note 325, at 253.

[343] Carnivore's pen mode collects "not only the 'To:' and 'From:' fields of targeted e-mail messages, but also the length of the message and the length of individual fields within those message. In fact, the system captures the entire e-mail message and all of its fields (including the 'SUBJECT' line contents of the message), but replaces each character in fields other than 'To:' and 'From:' with an X." Orr, *supra* note 325, at 230. Many writers have asserted that Carnivore's pen mode reveals more information than a pen register, which thereby distinguishes the analysis of *Smith*. *See, e.g.*, Segura, *supra* note 325, at 262 ("As a basic matter, e-mail addresses often reveal the parties who are writing one other, and there is usually no question about whether the message was completed, as it is instantaneously sent to an internet mailbox") (footnote omitted); Georgiton, *supra* note 325, at 1845-46 (same); Haas, *supra* note 325, at 288 (same). For example, Carnivore can reveal the *length* of an e-mail message, which discloses more information than a pen register reveals. *See, e.g.*, Orr, *supra* note 325, at 230; Eichenlaub, *supra* note 325, at 330, n.105. This fact probably will not matter to the Court. Disclosure of the *length* of an e-mail message without revealing the *contents* of that message can be analogized to FBI agents learning the *length* of a telephone conversation without learning about the *contents* of the oral communications. If the pen register in *Smith* had disclosed the length of the calls along with the numbers dialed, I doubt that this additional information would have changed the result in that case. *See Smith*, 442 U.S. at 742 (noting that subscribers realize "the phone company has facilities for making permanent records of the numbers they dial, for they see a list of their long-distance (toll) calls on their

Carnivore's pen mode "does reveal more about the identity of the sender and receiver than the ten simple digits of a telephone number."[344] But the revelation of this additional information is probably not enough to persuade the Court that *Smith*'s reasoning should be abandoned when deciding whether Carnivore's pen mode intercept constitutes a search. Similar arguments were raised in *Smith* to no avail. For example, Justice Stewart's dissent noted that telephone numbers dialed from a private line "are not without 'content.'"[345] A pen register discloses to government officials "the identities of the persons and the places called, and thus reveal the most intimate details of a person's life."[346] In like manner, Justice Marshall's dissent contended that giving police officials unfettered discretion to employ pen registers jeopardized privacy, as

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monthly bills"). Most telephone bills also provide the length of long distance calls. Therefore, the fact that Carnivore's pen mode reveals the length of an e-mail message without disclosing its contents is unlikely to affect the Court's determination of whether a search has occurred. One commentator who argues that e-mail addressing information is not entitled to constitutional protection, nevertheless disagrees with my assessment that Carnivore's capability to record the length of an e-mail message will not affect the Court's judgment on the constitutional status of e-mail addressing information. *See* Orr, *supra* note 325, at 231-32. This commentator asserts that the problem of overcollection "may be a fatal constitutional flaw" because, unlike telephone numbers and e-mail addressing information, "the length of messages and the length of individual fields within those messages is not regularly collected for any legitimate business purpose." Moreover, Carnivore's "collection of the entire body of the message in "X" form" creates the potential for abuse because "if the software can electronically 'redact' a message, perhaps it could also un-redact it, revealing the full contents." Accordingly, this writer concludes that Carnivore, as presently programmed, "should not be authorized for use as an Internet pen register." Orr, *supra* note 325, at 231-32.

While I agree that Carnivore's ability to capture the entire body of an e-mail message creates the potential for abuse, that fact will not make a difference to the Court. Long ago, the Court made clear technological devices that present a risk for invasions of privacy do not, standing alone, trigger Fourth Amendment protection. United States v. Karo, 468 U.S. 705, 712 (1984) (explaining that the installation of an unmonitored beeper "created a *potential* for an invasion of privacy, but we have never held that potential, as opposed to actual, invasions of privacy constitute searches for purposes of the Fourth Amendment . . . . It is the exploitation of technological advances that implicates the Fourth Amendment, not their mere existence.").

[344] Orr, *supra* note 325, at 231.

[345] *Smith*, 442 U.S. at 748 (Stewart, J., dissenting).

[346] *Id.*

well as First Amendment, interests.

> The prospect of unregulated governmental monitoring will undoubtedly prove disturbing even to those with nothing illicit to hide. Many individuals, including members of unpopular political organizations or journalists with confidential sources, may legitimately wish to avoid disclosure of personal contacts. Permitting governmental access to telephone records on less than probable cause may thus impede certain forms of political affiliation and journalistic endeavor that are the hallmark of a truly free society.[347]

These arguments did not convince the *Smith* majority that a pen register invades a homeowner's privacy when he uses a telephone,[348] and there is no reason to think that similar arguments will persuade the Court to discard *Smith*'s reasoning when determining Carnivore's pen mode intercept constitutes a search.

Likewise, the Court is unlikely to abandon the assumption of risk rule when it confronts the constitutional status of e-mail addressing information. *Smith* concluded that when a homeowner voluntarily conveyed numerical information to a third party, he "assumed the risk" that the third party would reveal that information to the government. As one commentator has recognized, *Smith*'s logic is equally applicable to e-mail addressing information.[349] It will not matter that ISP employees "must sign a confidentiality agreement that they will not read

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[347] *Id.* at 751 (Marshall, J., dissenting) (citations omitted); *see also*, David E. Steinberg, *Making Sense of Sense-Enhanced Searches*, 74 MINN. L. REV. 563, 577 (1990) ("The pen register, however, cannot be limited to provide information only about phone numbers that may relate to criminal activity. Police will learn of all calls dialed by the suspect, and thus will discover if the suspect has talked to the girl next door, the local Alcoholics Anonymous hotline, or the national Communist Party headquarters.").

[348] *See* Werdegar, *supra* note 256, at 108 (1998)

[349] Orr, *supra* note 325, at 229 ("Substituting the proper e-mail terms into [*Smith*'s] formula, it becomes clear that e-mail addressing information revealed to no one other than an ISP's equipment nevertheless falls squarely within the *Miller* assumption of risk doctrine, as interpreted in *Smith*."); Ku, *supra* note 1, at 1356 ("If Carnivore is programmed, for example, to capture the addresses of people with whom an individual is corresponding via e-mail, the analogy to *Smith* and the capturing of telephone numbers is even closer.").

[or disclose] customer communications such as e-mail."[350] Telephone operators presumably operated under similar restraints when *Smith* was decided, and even if such restraints did not exist, the employment policies and practices of telephone companies were irrelevant to the result in *Smith*.[351] What was relevant in *Smith*, and will be relevant in a future case involving e-mail addressing information, is the homeowner's voluntary decision to convey information to a third party. Under the assumption of risk theory, the disclosure of information to a third party denies Fourth Amendment protection to what might otherwise be private information.[352]

In sum, if the analysis of *Smith* determines the constitutional status of e-mail addressing information, then Carnivore's pen mode intercept will not be considered a search under the Fourth Amendment. The two main features that compelled the Court to find that a pen register was not a search—the nondisclosure of the contents of communications and the fact that the individual assumed the risk that private information would be revealed to the government—apply equally to e-mail addressing information. Thus, if *Smith*'s holding is the Court's "last word" on this issue, the Justice Department correctly concludes that the FBI is free to use Carnivore's pen mode intercept without triggering Fourth Amendment scrutiny.

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[350] Segura, *supra* note 325, at 253.

[351] In *Smith*, the defendant argued that he had an expectation of privacy in the local calls he dialed because telephone companies typically do not record local calls. The Court concluded that argument lacked any merit:

> The fortuity of whether or not the phone company in fact elects to make a quasi-permanent record of a particular number dialed does not, in our view, make any constitutional difference. Regardless of the phone company's election, petitioner voluntarily conveyed to it information that it had facilities for recording and that it was free to record. In these circumstances, petitioner assumed the risk that the information would be divulged to police. Under petitioner's theory, Fourth Amendment protection would exist, or not, depending on how the telephone company chose to define local-dialing zones, and depending on how it chose to bill its customers for local calls . . . . We are not inclined to make a crazy quilt of the Fourth Amendment, especially in circumstances where (as here) the pattern of protection would be dictated by billing practices of a private corporation.

Smith, 442 U.S. at 745.

[352] *See* Orr, *supra* note 325, at 229 ("When an Internet user sends a message over an ISP's network, she has revealed the addressing information to the ISP's equipment in the ordinary course of business, and she assumes the risk that the ISP will reveal her addressing information to the government. A Carnivore installation on the ISP network simply facilitates this 'revelation' by the ISP.") (footnote omitted).

B. Does Kyllo*'s Holding Cover E-Mail Addressing Information?*

Smith's holding, however, is not the end of the line. The rule established in *Kyllo* is pertinent to the constitutional status of e-mail addressing information. *Kyllo* holds that a search occurs when government actors acquire by "sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without physical 'intrusion into a constitutionally protected area.'"[353] If this standard is applied to Carnivore's pen mode, then intercepting e-mail addressing constitutes a search.

Carnivore's pen mode enables the FBI to obtain by technology information regarding the interior of the home that could not otherwise be obtained without physical intrusion into a home. A pen mode intercept allows FBI agents to monitor information regarding the recipients and senders of e-mail messages sent from or to a homeowner's computer. This information would be unavailable to the government unless FBI agents were inside the home and had access to a computer user's e-mail account. Moreover, it is obvious that Carnivore is not a device generally available to the public and that Carnivore's pen mode provides greater detail about the inside of a home than a thermal imager, which only reveals the relative amount of heat escaping from a house. Finally, Carnivore cannot escape constitutional scrutiny because e-mail addressing information is available from a third party. Under *Kyllo*'s analysis, Carnivore does not become a non-search merely because the information acquired by a pen mode intercept is obtainable from an internet service provider.[354]

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[353] Kyllo v. United States, 533 U.S. 27, 34 (2001).

[354] *Kyllo*, 533 U.S. at 35, n.2 ("The fact that equivalent information could sometimes be obtained by other means does not make lawful the use of means

In sum, a straightforward application of *Kyllo*'s holding demonstrates that a search occurs when the FBI employs Carnivore to intercept and record the routing and addressing information of e-mails sent from or to home computers. If the Court is forced to address the constitutional status of e-mail addressing information, at least two options will be available. The Court can overrule *Smith v. Maryland* or confine *Kyllo*'s holding to thermal imaging. The likelihood that *Smith* will be overruled seems remote, although *Kyllo* substantially undermines *Smith*'s legal foundation. As noted above, the analytical framework that dictates the conclusion that thermal imaging is a search also compels the judgment that a pen register is a search.

On the other hand, limiting *Kyllo* to the narrow context of thermal imaging and not applying its holding to Carnivore is both unprincipled and perverse. A principled application of *Kyllo* would extend to its holding to all places and contexts entitled to Fourth Amendment protection.[355] Furthermore, Fourth Amendment law would be bizarre if *Kyllo* did not apply to Carnivore's pen mode. After all, the *Kyllo* majority was concerned about interpretations of the Fourth Amendment that would "leave the homeowner at the mercy of advancing technology."[356] Even commentators who believe that Carnivore can be re-programmed to comply with Fourth Amendment safeguards, concede that Carnivore, as currently programmed, reveals more private information than previously permitted under the Court's precedents.[357] It would be strange indeed for the Court to reject a "mechanical interpretation of the Fourth Amendment" when considering the constitutional status of a crude device that involves "no 'significant' compromise of [a] homeowner's privacy,"[358] but then put aside its concerns about "advancing technology" and the privacy of the home when determining whether Carnivore's pen mode constitutes a

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that violate the Fourth Amendment.").

[355] *See id*. at 48-49 (Stevens, J., dissenting).

[356] *Id*. at 35-36.

[357] *See, e.g.,* Orr, *supra* note 325, at 231.

[358] *Kyllo*, 533 U.S at 35 & 40.

search.[359]

What will the Court do? I predict that the Court will conclude that Carnivore's pen mode does not violate the Fourth Amendment. The Court can achieve this result by using one of two modes of analysis. Under the first approach, as suggested, the Court will confine *Kyllo* to the context of thermal imaging and apply the analytical framework of *Smith* to conclude e-mail addressing information is not protected under the Fourth Amendment. If the Court adopts this model, *Kyllo*, like *Katz*, will become a "paper tiger" and will have little impact on the government's authority to use technology to gather information or monitor individuals' online activity.[360]

Under the second approach, the Court can avoid the tension between *Kyllo* and *Smith* by relying on its "special needs" cases to find that Carnivore's pen mode does not violate the Fourth Amendment. "Special needs" analysis is a fancy way to describe the balancing test performed by the Court in cases where the government lacks judicial authority or probable cause to conduct searches and seizures.[361] Indeed, "special needs" analysis may be an enticing framework to determine the constitutional status of e-mail addressing information because the Court has already used this doctrine to assess the constitutionality of drug testing programs in various contexts. Urinalysis, of course, is another type of technology that reveals information to the government that would otherwise be unavailable without the use of intrusive means by government officers.

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[359] The invasiveness of Carnivore's reach has been described elsewhere. *See, e.g.*, Bridis & King, *supra* note 325, at A3 (quoting a former prosecutor saying that Carnivore is "the electronic equivalent of listening to everybody's phone calls to see if it's the call you should be monitoring. You develop a tremendous amount of information."); Haas, *supra* note 325, at 271 (attributing to Richard Forno the argument that "Carnivore is an electronic eavesdropping device"); Segura, *supra* note 325, at 231-32 (noting Carnivore "can conduct a far-reaching, general search of people who are not subject to a court order," and that many worry that "the Carnivore system will facilitate a 'fishing expedition' in search of any evidence of crime").

[360] *See* Skok, *supra* note 25, at 78-79, which argues that if *Smith*'s analysis is applied to clickstream data, then law enforcement officers will be able to know:

> not only what sites [an individual] visited, but also for how long each was visited, how often each site was re-visited, and which links were followed from each site. A comparable level of knowledge in the concrete world would require that the officers know not only which books the suspect borrowed, but also when she read the books, how long she spent reading each book and each page, and the sequence in which she read each book and each page.

Skok, *supra* note 25, at 78-79.

[361] At its inception, the "special needs" rule was intended as a narrow exception to the warrant and probable cause requirements. "Only in those exceptional circumstances in which special needs, beyond the normal need for law enforcement, make the warrant and probable-cause requirement impracticable, is a court

Since 1989, the Court has decided six cases challenging the constitutionality of drug testing policies.[362] In only two cases,

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entitled to substitute its balancing of interests for that of the Framers." New Jersey v. T.L.O. 469 U.S. 325, 351 (1985) (Blackmun, J., concurring). Although intended as a limited exception, the special needs cases have expanded to the point where government actors are now permitted to conduct suspicionless searches in various contexts (including scenarios that involve criminal law enforcement) without establishing a compelling government interest. *See* JOSHUA DRESSLER, UNDERSTANDING CRIMINAL PROCEDURE 338-353 (3d ed. 2002). Professor Dressler explains that "when the Court determines that 'special needs' exist, it evaluates the government activity—the special need—by [a] 'reasonableness' balancing standard." *Id.* at 339. Not surprisingly, "nearly always, the government interest 'trumps' the requirements of a warrant and/or probable cause (or reasonable suspicion)." *Id.* (footnote omitted). On the Constitution's 200th anniversary, Professor Kamisar explained why the "special" needs doctrine undermines core Fourth Amendment values:

> The handiness of the administrative search concept has gladdened the hearts of many government lawyers. But it has alarmed other observers, including me. Today, potential administrative searches are buzzing around the Fourth Amendment like a swarm of bees. With drug and AIDS testing, the drone may soon grow deafening . . . . However great the threat posed by illicit drug use and the AIDS virus, the 'individualized suspicion' concept must remain the heart of the Fourth Amendment. I believe we should greet claims of 'national interest,' 'emergency' or 'necessity' with considerable skepticism. Slogans like these can be—and have been—a free people's most effective tranquilizers. As we mark the Constitution's 200th anniversary, we would do well to remember that.

Yale Kamisar, *Drugs, AIDS and the Threat to Privacy*, N.Y. TIMES, Sept. 13, 1987, § 6 (Magazine), at 109. For more recent academic commentary on the "special needs" cases, *see* DRESSLER, *supra* note 361, at 338, n.1 (citing articles).

[362] *See* Bd. of Ed. v. Earls, 122 S. Ct. 2559 (2002) (approving drug testing of all students who participate in competitive extracurricular activities); Ferguson v. Charleston, 532 U.S 67 (2001) (invalidating drug testing of maternity patients); Chandler v. Miller, 520 U.S. 305 (1997) (invalidating urinalysis requirement for candidates running for state office); Vernonia Sch. Dist. 47J v. Acton, 515 U.S. 646 (1995) (upholding random drug testing of public school students who voluntarily participate athletic teams); Treasury Employees v. Von Raab, 489 U.S. 656 (1989) (upholding drug testing customs officers applying for positions involving

has the Court invalidated the urinalysis programs on Fourth Amendment grounds.[363] The three main factors considered by the Court in determining the validity of a drug testing regime are the nature of the privacy interest, the character of the intrusion, and the nature and immediacy of the governmental interests.[364] Applying this framework, the Court could decide that Carnivore's pen mode intercept constitutes a search, but the intrusion is conducted in a minimal manner and the government's need for e-mail addressing information "is important—indeed, perhaps compelling,"[365] especially if the facts involve a terrorist or national security threat.[366]

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drug interdiction or requiring the carrying of a firearm or the handling of classified documents); Skinner v. Ry. Labor Executives' Assn., 489 U.S. 602 (1989) (upholding drug and alcohol testing of railroad employees following major train accidents).

[363] *See Ferguson*, 532 U.S. at 81 (ruling unconstitutional drug testing program of maternity patients suspected of drug use primarily because the main objective of the testing was to gather evidence for law enforcement purposes); *Chandler*, 520 U.S. at 318 (invalidating statute requiring drug testing of candidates running for state office because the state had not demonstrated a substantial problem of drug abuse to justify a special need for suspicionless searches).

[364] *Earls*, 122 S. Ct. at 2565-67; *Acton*, 515 U.S. at 654-664.

[365] *Acton*, 515 U.S. at 661. The drug testing cases illustrate how the Court often finds that a challenged intrusion constitutes a search, but is nevertheless constitutionally permissible because the privacy interests and character of the intrusion are minimal. *See, e.g., Earls*, 122 S. Ct. at 2567 (explaining that "[g]iven the minimally intrusive nature of the sample collection and the limited uses to which the test results are put, we conclude that the invasion of students' privacy is not significant"); *Acton*, 515 U.S. at 658 (noting that "the privacy interests compromised by the process of obtaining the urine sample are in our view negligible"); *Skinner*, 489 U.S. at 604 (concluding that drug and alcohol testing procedures "pose only limited threats to the justifiable expectations of privacy of covered employees").

[366] *See, e.g., In re*: Sealed Case No. 02-001, at 53-55, United States Foreign Intelligence Surveillance Court of Review (Decided Nov. 18, 2002), *available at* http://www.cadc.uscourts.gov/common/newsroom/02-001.pdf (relying on the Court's "special needs" cases as support for different Fourth Amendment requirements when the government's interest is to protect the nation against terrorist threats as to opposed to ordinary crime control). In theory, the "special needs" doctrine does not apply when the search promotes law enforcement interests. For example, in *Ferguson*, the Court distinguished a city hospital's drug testing of maternity patients from previously approved drug testing programs. "In each of those earlier cases, the 'special need' that was advanced as a justification for the absence of a warrant or individualized suspicion was one divorced from the State's general interest in law enforcement." *Ferguson*, 532 U.S. at 79. Although "the ultimate

Based on volume alone, the drug testing cases provide considerable insight on the Justices' views about the interaction between technology and the Fourth Amendment. Therefore, lawyers and scholars may be better able to predict the Court's thinking on the "proper analytical structure that should be employed to reconcile technological change with Fourth Amendment rights"[367] by focusing on the Court's "special need" cases, rather than focusing on *Kyllo*.

CONCLUSION

The attacks of September 11 had an enormous impact on Americans' attitudes about law enforcement. After those attacks, President Bush and Congress enacted sweeping legislation designed to protect the nation from future terrorism. Much of that legislation expands the search and seizure powers of government. No one should be lulled into thinking that these

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goal of the program [in *Ferguson*] may well have been to get the women in question into substance abuse treatment and off of drugs, the immediate objective of the searches was to generate evidence *for law enforcement purposes* in order to reach that goal." *Id.* at 83-84 (footnotes omitted).

While the Court asserts that its "special needs" doctrine is inapplicable to searches that promote law enforcement objectives, its precedents suggest that this is not always the case. *See* New York v. Burger, 482 U.S. 691, 712-13 (1987) (applying "special needs" analysis and upholding statute authorizing administrative officers and *police officers* to conduct suspicionless searches of owners of automobile junkyards); *Burger*, 482 U.S. at 716 (rejecting claim that an "administrative scheme is unconstitutional simply because, in the course of enforcing it, an inspecting officer may discover evidence of crimes, besides violations of the scheme itself"); Griffin v. Wisconsin, 483 U.S. 868 (1987) (applying "special needs" analysis and upholding warrantless search of a probationer's home by a probation officer); *cf. Ferguson*, 532 U.S. at 100 (Scalia, J., dissenting) ("[S]pecial-needs doctrine was developed, and is ordinarily employed, precisely to enable searches *by law enforcement officials* who, of course, ordinarily have a law enforcement objective"); RONALD JAY ALLEN ET AL., COMPREHENSIVE CRIMINAL PROCEDURE 614 (2001) (explaining that *New York v. Burger* "most clearly illustrates the degree to which the Court is willing to recognize 'special needs' in contexts where law enforcement interests are clearly also present"); DRESSLER, *supra* note 360 (acknowledging the "considerable tension between *Ferguson* and *Griffin*" on whether the presence of law enforcement interests eliminates the applicability of the "special needs" doctrine).

[367] Brochure Announcing Symposium on April 12, 2002, *The Effect of Technology on Fourth Amendment Analysis and Individual Rights*, National Center for Justice and the Rule of Law, The University of Mississippi School of Law.

expanded powers will be confined to highly-trained FBI agents investigating international terrorists. Once the judiciary approves additional search and seizure powers for federal agents, state and local police usually acquire similar authority in their fight against ordinary crime.[368] Thus, the reaction of the federal judiciary to the government's war on terrorism is likely to affect the freedom of all Americans.

It may seem unimportant to the non-lawyer whether the courts consider a particular police practice a "search" or not. But this perception is dangerous to freedom. Yale Kamisar rightly observes:

> Freedom of speech, freedom of religion, and other freedoms, have earned much praise, and deservedly so, but the Fourth Amendment may plausibly be viewed as *the* centerpiece of a free democratic society. All the other freedoms presuppose that lawless police action have been restrained. What good is freedom of speech or freedom of religion or any other freedom if law enforcement officers have unfettered power to violate a person's privacy and liberty when he sits in his home or drives his car or walks the streets?[369]

Kyllo is a significant ruling on the scope of the Fourth Amendment. Although *Kyllo*'s impact on future cases remains uncertain at this point, the choices available to the Court are not difficult to imagine. The Court could interpret *Kyllo*'s holding as limited to a privilege against thermal imaging directed at a home. On the other hand, the Court may recognize that *Kyllo*'s logic extends to other contexts like e-mail addressing information. If the Court chooses the former interpretation, the constitutional freedoms of all Americans will be diminished.

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[368] *See* William J. Stunz, *Local Policing After the Terror*, 111 YALE L. J. 2137, 2140 (2002) (noting that "most constitutional limits on policing are transsubstantive—they apply equally to suspected drug dealers and suspected terrorists") (footnote omitted).

[369] Yale Kamisar, *The Fourth Amendment And Its Exclusionary Rule*, THE CHAMPION Aug, 1991, at 2.

BACK TO THE FUTURE: *KYLLO, KATZ,* AND COMMON LAW

David A. Sklansky[*]

If all law seeks to reconcile the future with the past, the effort is especially evident in the law of search and seizure. The text of the Fourth Amendment itself points both forwards and backwards, joining a prohibition of specific past abuses with a broad proscription of any "unreasonable searches and seizures" the future might deliver. Much of the Supreme Court's famously zigzagging jurisprudence of search and seizure can be understood as a continuing debate over how best to harmonize these two orientations. To what extent does the Fourth Amendment set permanent, unchanging limits on the government's investigative authority? To what extent should those limits change as society changes?[1]

Recently these questions have become more pressing. The atrocities of September 11, 2001, along with many of the law enforcement measures taken in response, have properly prompted wide reconsideration of the appropriate balance between liberty and security in modern-day America. Now more than ever, history may seem to offer little guidance on this question. The Framers did not have to worry about airplanes crashing into skyscrapers, or about lethal aerosols sent through the mail. Neither did they have cause to contemplate the proper restrictions on electronic eavesdropping, or on the use of racial profiles by quasi-military police forces. Looking for advice on these matters in the eighteenth century can seem pointless, but striking the balance between liberty and security *without* historical perspective may be worse. How else, if not by reference to the past, will we be able to discern the follies of our own day? And what else is a constitution for, if not striking enduring balances?

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[1] *See, e.g.,* Tracey Maclin, *The Complexity of the Fourth Amendment: A Historical Review*, 77 B.U. L. REV. 925, 926-27 (1997). "In one case, history provides the driving force behind a ruling; in another, it is neglected even though the challenged police conduct is contrary to historical practice. In yet other cases, the meaning and weight of historical precedent sharply divide the Court, leaving readers to wonder why the Court invokes historic rules when modern realities might govern the interactions between the police and the citizenry." *Id.*

As the Supreme Court considers these questions in the coming years, among its likely touchstones will be a decision released three months before the terrorist attacks, *Kyllo v. United States*.[2] The ruling in *Kyllo* was relatively narrow: police officers need a warrant to aim a thermal imaging device at a house.[3] Most of the initial reaction to the decision, moreover, focused on its ideological oddity.[4] The Supreme Court rarely grants criminal suspects a protection previously rejected by five federal courts of appeals and adopted by none.[5] When Justice Scalia writes the majority opinion in a Fourth Amendment case over a dissent penned by Justice Stevens, the defendant does not usually win.[6] And it is rare to see Chief Justice Rehnquist, Justice O'Connor and Justice Kennedy all join Justice Stevens and side against Justice Scalia.[7] In each of these respects, *Kyllo* stood out as peculiar.[8]

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[2] 533 U.S. 27 (2001).

[3] *Kyllo*, 533 U.S. at 33.

[4] *See, e.g.*, Alan M. Dershowitz, *Curious Fallout from Bush v. Gore*, N.Y. TIMES, July 4, 2001, at A15; Patty Reinert, *Ruling Limits Heat-Sensing Search*, HOUSTON CHRON., June 12, 2001, at A3, *available at* 2001 WL 3027481.

[5] *See* United States v. Kyllo, 190 F.3d 1041 (9th Cir. 1999), *rev'd*, 533 U.S. 27 (2001); United States v. Robinson, 62 F.3d 1325 (11th Cir. 1995); United States v. Ishmael, 48 F.3d 850 (5th Cir. 1995); United States v. Myers, 46 F.3d 668 (7th Cir. 1995); United States v. Pinson, 24 F.3d 1056 (8th Cir. 1994). *But cf.* United States v. Cusumano, 67 F.3d 1497 (10th Cir. 1995) (warrantless use of thermal imager violated Fourth Amendment), *vacated and decided on other grounds*, 83 F.3d 1247 (10th Cir. 1996) (en banc).

[6] Justice Scalia sometimes sides with the "liberals" when the Supreme Court divides on questions of criminal procedure, but the liberals he sides with almost always include Justice Stevens. *See, e.g.*, County of Riverside v. McLaughlin, 500 U.S. 44 (1991); Maryland v. Craig, 497 U.S. 836 (1990); Nat'l Treasury Employees

Even before September 11, though, it was apparent that *Kyllo* had significance beyond its narrow holding and beyond its value as a curiosity.[9] And indeed, the Court's reasoning was expansive. Led by Justice Scalia, the majority took the occasion to set ground rules for determining when any new technology of surveillance constitutes a "search" and thus must comply with the requirements of the Fourth Amendment. In doing so, the Court substantially reinterpreted *Katz v. United States*,[10] perhaps the most influential search-and-seizure decision of the past half-century, and rethought the relationship between the Fourth Amendment and common law, a relationship that over the past decade has come to figure prominently in the Court's approach to the Fourth Amendment. The majority in *Kyllo* sought to take "the long view,"[11] providing broad guidance on applying the Fourth Amendment to changing times. Particularly in the wake of September 11, this is guidance it behooves us to scrutinize.

Union v. Von Raab, 489 U.S. 656 (1989); Arizona v. Hicks, 480 U.S. 321 (1987). When Justice Stevens dissents in a Fourth Amendment case, ordinarily it means the liberals have lost. *See, e.g.,* Illinois v. Wardlow, 528 U.S. 119 (2000); Florida v. White, 526 U.S. 559 (1999). This is particularly true if Justice Scalia has written the majority opinion. *See, e.g.*, Wyoming v. Houghton, 526 U.S. 295 (1999); California v. Hodari D., 499 U.S. 621 (1991); Griffin v. Wisconsin, 483 U.S. 868 (1987).

[7] *But cf.* PGA Tour, Inc. v. Martin, 532 U.S. 661 (2001).

[8] Kyllo himself added further color to the case. He is probably the first criminal defendant ever to celebrate his Supreme Court victory with t-shirts offered for sale on his own web site. *See* http://www.oregonfast.net/~dlkyllo/tshirt.htm (visited June 23, 2002). "The front of the shirt has 'Thermal Warning', two AGEMA 210 thermal imagers and the image that the police obtained after shooting Danny's house. The back of the shirt has 'Remember to turn off your thermal imager without a warrant-Supreme Court June 11, 2001', a picture of Danny and 'Danny Lee Kyllo-Freedom Fighter.'" *Id.*

[9] *See, e.g.,* Jeffrey Rosen, *A Victory for Privacy*, WALL ST. J., June 18, 2001, at A18, *available at* 2001 WL-WSJ 2866886; Kathryn R. Urbonya, *The Fourth Frontier,* A.B.A. J., Sept. 2001, at 36.

[10] 389 U.S. 347 (1967).

[11] *Kyllo*, 533 U.S. at 40.

Happily, it turns out to be guidance that is largely sound. But it is also guidance that poses serious questions.

This article examines *Kyllo* in some detail, focusing on the manner in which the decision revisits the past—both earlier Fourth Amendment jurisprudence and the common-law antecedents of the Amendment itself—with an eye to the future. Part I describes the doctrinal background of the decision: the widely invoked and firmly ahistoric framework established by *Katz*, the problems the Court has encountered in applying that framework, and the escalating challenge posed to that framework in recent years by the Court's efforts to anchor Fourth Amendment law in eighteenth-century rules of search and seizure. Part II discusses the approach *Kyllo* took in analyzing these problems: an approach that differs both from the received understanding of *Katz* and from the view of the Fourth Amendment toward which the Court had increasingly gravitated in recent years, a view I have described elsewhere as "the new Fourth Amendment originalism."[12] *Kyllo* can easily be seen as a repudiation of *Katz* and a continuation of the originalist turn in search-and-seizure law, but I argue that reading is mistaken. In some respects *Kyllo* is strikingly faithful to *Katz*: it strongly reaffirms, for example, the Court's holding in *Katz* that a search requires no trespass or physical intrusion. And the originalism in *Kyllo* is not the originalism the Court has applied in other recent Fourth Amendment cases. The use of history in *Kyllo* is looser, and it has a different focus: the Court has shifted its attention, if only temporarily, from the *content* of eighteenth-century rules of search and seizure to what those rules *accomplished*. In these respects, the methodology of *Kyllo* itself represents something of a return to the past—albeit to a past more open to the future.

Part III of the article assesses *Kyllo* and explores its connotations for the new Fourth Amendment originalism and for the legacy of *Katz*. The discussion here is necessarily speculative. Drawing lessons from a single decision is always chancy. But if the Court means what it says in *Kyllo*, the new Fourth Amendment originalism has been modified for the better. *Kyllo* may also point the way toward a better understanding of *Katz*, depending on how the Court answers two questions that *Kyllo* leaves open. The first concerns the measure of Fourth Amendment protection outside of the home. *Kyllo* treats the home as a special place for Fourth Amendment purposes—hardly a novel proposition for the Supreme Court, but one that throws into doubt not only the reasoning of *Katz*, as it usually has been understood, but also the narrow holding of the case, that electronic surveillance of telephone conversations constitutes a "search." I argue that the solution lies in recognizing that the Fourth Amendment protects communications as well as places—or, to use a modern metaphor, that virtual places as well as physical places can receive Fourth Amendment protection. The second question *Kyllo* leaves open is whether devices like thermal imagers are regulated by the Fourth Amendment only so long as they remain uncommon. I argue that the answer should be no, but that defending this answer may require the Court to reconsider certain other features of search-and-seizure law—features that are due for reconsideration in any event.

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[12] David A. Sklansky, *The Fourth Amendment and Common Law*, 100 COLUM. L. REV. 1739, 1744 (2000).

Throughout this article, I focus on what might be called the temporal orientation of Fourth Amendment jurisprudence: the degree to which the Supreme Court's methodology focuses on the past, the present, or the future. This focus entails two kinds of simplification, and it is well to acknowledge them at the outset.

First, there obviously is a good deal more to search-and-seizure law than its temporal orientation. Even leaving aside fine points of doctrine, the story of Fourth Amendment law has important themes other than the relative importance placed on history, present-day realities, and predictions of things to come. There is the question of textualism, for example, a question muted but hardly settled by the famously open-ended wording of the Fourth Amendment. There is also the debate between rules and standards, the pervasive issues of race and class—and, of course, the inevitable tradeoffs between liberty and security.[13] I focus here on the temporal orientation of search-and-seizure law not because it is the law's single most critical feature, but because it has received less attention than other aspects of Fourth Amendment jurisprudence, and because, as I hope to show, it proves especially helpful in assessing the significance of *Kyllo*.

Second, even to speak of the law's temporal orientation is necessarily to leave out certain nuances—so much so that the entire enterprise may at first strike the reader as unintelligible. Most people, and most Supreme Court Justices, would say that any sensible application of the Fourth Amendment needs to take into account historical background *and* modern conditions *and* anticipated developments. Thus, for example, Chief Justice Taft wrote for the Court in *Carroll v. United States*[14] that the Amendment should be read "in the light of what was deemed an unreasonable search and seizure when it was adopted, *and* in a manner which will conserve public interests as well as the interests and rights of individual citizens."[15] Justice Brandeis, in his famous dissent in *Olmstead v. United States*,[16] sought to draw from the eighteenth-century origins of the Fourth Amendment a principle supple enough to keep pace with the "progress of science in furnishing the Government with means of espionage."[17] And Justice Scalia's majority opinion in *Kyllo* tried to work "from the original meaning of the Fourth Amendment forward."[18]

Still, some views of the Fourth Amendment seem to lean particularly heavily on the past, while others focus with special intensity on the present or the future. The last decade of search-and-seizure law has in fact been marked by a struggle between a view of the first kind and a view of the second kind. And part of what makes *Kyllo* important is precisely the manner in which it grows out of and alters the terms of that struggle.

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[13] The classic exposition of these tensions remains Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349 (1974).

[14] 267 U.S. 132 (1925).

[15] *Carroll*, 267 U.S. at 149 (emphasis added).

[16] 277 U.S. 438 (1928).

[17] *Olmstead*, 277 U.S. at 474.

[18] *Kyllo*, 533 U.S. at 40.

I. THE CONTEXT OF *KYLLO*

In the fifty years before it decided *Kyllo v. United States*, the Supreme Court had twice significantly altered its approach to the Fourth Amendment and, in particular, the role of history in interpreting the Amendment. The first change was signaled by the Court's consciously modernizing decision in *Katz v. United States*. The second change cannot similarly be traced to a particular, pivotal case, but instead was accomplished gradually, through a series of decisions placing increasing emphasis on eighteenth-century common law as a guide for applying the Fourth Amendment. These are the cases I have described elsewhere as announcing a new Fourth Amendment originalism.

Understanding *Kyllo* requires an appreciation of both these earlier developments—*Katz* and the return to common law. In important ways, *Kyllo* steers a middle course between them. Before discussing *Kyllo*, therefore, let us examine its context.

A. Katz

The central question of Fourth Amendment jurisprudence has always been what to make of the broad prohibition, in the Amendment's opening clause, of all "unreasonable searches and seizures" of "persons, houses, papers, and effects."[19] The Amendment's second, concluding clause is much less sweeping; it directs only that warrants must be based on "probable cause, supported by Oath or affirmation," and must "particularly describ[e] the place to be searched, and the persons or things to be seized."[20] The wording of the second clause leaves open certain important questions, notably what counts as "probable cause" and what degree of "particularity" warrants must satisfy. But these are relatively narrow inquiries, and the Supreme Court has made them simple by keeping the definition of probable cause exceedingly vague[21] and the standard of particularity exceedingly low.[22] The difficulty in Fourth Amendment law is defining "unreasonable searches and seizures."

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[19] U.S. CONST. amend. IV.

[20] *Id.*

The challenge is twofold: defining "searches and seizures" and deciding what makes a search or seizure "unreasonable." Of these, the first is as important as the second, and arguably more important. For any standards of reasonableness inevitably will have some play, allowing courts to strike down those searches and seizures that seem particularly abusive and uphold those that seem particularly justified. But investigative tactics that are not deemed "searches" or "seizures" escape judicial review altogether under the Fourth Amendment. And, conversely, once something is declared a "search" or "seizure" for purposes of the Amendment, it becomes the business of courts to decide its reasonableness, intruding on and possibly second-guessing the judgment of the police.

For roughly the first two-thirds of the twentieth century, the Supreme Court relied in part on the history of the Fourth Amendment for assistance in answering both of the definitional problems associated with the term "unreasonable searches and seizures." The chief evils against which the Amendment took aim were the "general warrants" that English judges had struck down in a celebrated series of decisions in the 1760s and the "writs of assistance" to which the American colonists had repeatedly protested in the years leading up to the Revolutionary War.[23] Both these instruments authorized entry into homes and the seizure of papers and effects. Partly for this reason, and notwithstanding the protests from Justice Brandeis, the Supreme Court ruled early in the twentieth century in *Olmstead v. United States* that a "search" or "seizure" for purposes of the Fourth Amendment must involve a physical trespass or confiscation.[24] And because both general warrants and writs of assistance were attacked as abuses of the warrant process, the Supreme Court concluded that adherence to that process should ordinarily serve as the benchmark for determining whether a search or seizure is "reasonable" for purposes of the Fourth Amendment. Therefore the Amendment's broad prohibition of "unreasonable searches and seizures" became, to a large extent, a rule requiring that any search or seizure, subject to certain exceptions, be authorized by warrant and supported by a showing of probable cause.[25]

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[21] *See, e.g.*, Illinois v. Gates, 462 U.S. 213 (1983); Draper v. United States, 358 U.S. 307 (1959). The sole complication in the definition of probable cause is the manner in which the standard is relaxed for administrative warrants. *See* Camara v. Municipal Court, 387 U.S. 523 (1967). The Court has resolutely refused to extend the relaxed standard, or even the notion that the standard of probable cause *can* be relaxed, to any other setting. *See, e.g.*, Griffin v. Wisconsin, 483 U.S. 868, 877-78 (1987).

[22] *See, e.g.*, Andresen v. Maryland, 427 U.S. 463 (1976).

[23] General warrants were expansive grants of authority to crown officers to search for and to arrest certain offenders, typically printers and publishers of seditious libel, and to search for and to seize their papers. Writs of assistance empowered colonial revenue agents to search for smuggled goods wherever they

When the Supreme Court decided *Katz* in 1967, it left

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might be hidden. For discussions of general warrants and writs of assistance, the resentment they provoked, and their role in the development of the Fourth Amendment, see, for example, NELSON B. LASSON, THE HISTORY AND DEVELOPMENT OF THE FOURTH AMENDMENT TO THE UNITED STATES CONSTITUTION 42-78 (1937); TELFORD TAYLOR, *Search, Seizure, and Surveillance*, *in* TWO STUDIES IN CONSTITUTIONAL INTERPRETATION 19, 24-38 (1969); Thomas Y. Davies, *Recovering the Original Fourth Amendment*, 98 MICH. L. REV. 547 (1999); Maclin, *supra* note 1, at 939-50; William J. Cuddihy, The Fourth Amendment: Origins and Original Meaning 884-1181 (1990) (unpublished dissertation, Claremont Graduate School). For a helpful summary of Cuddihy's work and a thoughtful assessment of its implications, see Morgan Cloud, *Searching Through History; Searching for History*, 63 U. CHI. L. REV. 1707 (1996).

[24] 277 U.S. 438, 463-66 (1928).

[25] *See, e.g.*, TAYLOR, *supra* note 23; Akhil Reed Amar, *Fourth Amendment First Principles*, 107 HARV. L. REV. 757, 762-85 (1994). The claim should not be overstated. The Court sometimes wavered from the warrant requirement, perhaps most notably in a string of vacillating decisions about searches following lawful arrests. At one point, the Court tied the validity of such searches to "the total atmosphere of the case" and held that "[t]he relevant test is not whether it is reasonable to procure a search warrant, but whether the search was reasonable." United States v. Rabinowitz, 339 U.S. 56, 66 (1950). But this position marked a departure from the Court's previous insistence that, even for searches incident to arrest, "[i]t is a cardinal rule that . . . law enforcement agents must secure and use search warrants wherever reasonably practicable." Trupiano v. United States, 344 U.S. 669 (1948). And the Court ultimately repudiated both the holding and the underlying approach of *Rabinowitz*. *See infra* note 26. "The warrant requirement," the Court later explained, "has been a valued part of our constitutional law for decades." Coolidge v. New Hampshire, 403 U.S. 443, 481 (1971).

untouched—for the time being—the principle that "unreasonable" for purposes of the Fourth Amendment generally meant "without probable cause and a warrant." Indeed, *Katz* expressly reaffirmed that "searches conducted outside the judicial process, without prior approval by judge or magistrate, are *per se* unreasonable under the Fourth Amendment—subject only to a few specifically established and well-delineated exceptions."[26] But while *Katz* retained the traditional definition of reasonableness, the decision appeared to revolutionize the test for determining in the first place whether something is a "search" or "seizure," and thus subject to the Fourth Amendment. The "trespass" test had led the Court in *Olmstead* to conclude that wiretapping fell outside the ambit of the Fourth Amendment because it involved neither physical entry into the suspect's house nor an actual confiscation of the suspect's property.[27] At issue in *Katz* was electronic monitoring of calls placed by a bookie from two telephone booths.[28] Under *Olmstead* this clearly was neither a search nor a seizure: nothing tangible was confiscated, and there was no trespass.[29] But the *Katz* Court rejected this result as incompatible with "the vital role that the public telephone has come to play in private communication."[30] And the Court took the occasion the reject as obsolete the "trespass" theory underlying the *Olmstead* decision.[31] Writing for the majority in *Katz*, Justice Stewart proclaimed, in words that were to become famous, "the Fourth Amendment protects people, not places."[32] This meant, he explained, that "[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection," but "what he seeks to preserve as private, even in an areas accessible to the public, may be constitutionally protected."[33] Eavesdropping on calls the defendant placed from a telephone booth constituted a "search and seizure" within the meaning of the Fourth Amendment, because it "violated the privacy upon which he justifiably relied when using the telephone booth."[34]

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[26] 389 U.S. at 357. The Court reiterated this point two years after *Katz*, when it overruled earlier decisions, including *United States v. Rabinowitz*, *supra*, that had upheld broad, warrantless searches following lawful arrests. *See* Chimel v. California, 395 U.S. 752, 762 (1969). The Court sharply limited warrantless searches following an arrest to the person of the arrestee and the area within his or her reach, *see id.* at 766, and it rejected as unacceptably "subjective" the open-ended assessment of reasonableness undertaken in cases like *Rabinowitz*. *Chimel*, 395 U.S. at 764. "Under such an unconfined analysis," the Court explained, "Fourth Amendment protection in this area would approach the evaporation point." *Id.* at 765; *accord*, United States v. United States District Court, 407 U.S. 297, 315 & n.16 (1972).

[27] *Olmstead*, 277 U.S. at 466.

[28] *Katz*, 389 U.S. at 348.

[29] Indeed, there was not even a physical intrusion into the telephone booth, which of course was not the suspect's property in any event. The monitoring was carried out by tape recorders placed above the booths. *See* Katz v. United States, 369 F.2d 130, 131 (9th Cir. 1966), *rev'd*, 389 U.S. 347 (1967).

[30] *Katz*, 389 U.S. at 352.

Katz parted from *Olmstead* not just on the narrow question whether electronic eavesdropping on telephone conversations is a search or seizure, and not just on the broader question whether a search or seizure requires a physical trespass or confiscation, but also, implicitly, on the still broader question of the proper role of history in interpreting the Fourth Amendment. Justice Stewart's opinion for the Court in *Katz* was strikingly forward-looking—or at least present-looking. It alluded repeatedly to the realities of modern life, but contained not a word about the background of the Fourth Amendment. Justice Black's dissent took up the subject in earnest, complaining that the Amendment "was aimed directly at the abhorred practice at breaking in, ransacking and searching homes and other buildings and seizing people's personal belongings without warrants issued by magistrates."[35] It was not aimed, Black argued, at eavesdropping.[36] The majority did not even bother responding, so little did it appear to care about eighteenth-century history. In this respect *Katz* heralded a change in the Court's entire approach to the Fourth Amendment, not just in its thinking about what constitutes a search or seizure.

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[31] *See id.* at 352-53.

[32] *Id.* at 351.

[33] *Id.*

[34] *Id.* at 353; *see also id.* at 352 ("No less than an individual in a business office, in a friend's apartment, or in a taxicab, a person in a telephone booth may rely upon the protection of the Fourth Amendment. One who occupies it, shuts the door behind him, and pays the toll that permits him to play a call is surely entitled to assume that the words he utters into the mouthpiece will not be broadcast to the world.") (footnotes omitted).

[35] *Id.* at 367 (Black, J., dissenting).

[36] *See id.* at 366-67.

The modernizing, ahistorical approach that *Katz* took to the Fourth Amendment was extended six months later, in *Terry v. Ohio*,[37] to the question of what makes a search or seizure "unreasonable." *Terry* concerned the legality of the widespread and controversial police tactic of stopping and frisking suspects without a warrant and without probable cause.[38] The practice was particularly controversial when the Court decided *Terry* in 1968. Police harassment, much of it taking the form of "field interrogations," was widely thought to have contributed to the urban riots of 1967.[39] Writing for the Court in *Terry*, Chief Justice Warren took explicit note, at some length, of the grievances provoked by investigatory stops and frisks, and also of the practicalities of modern policing and modern weaponry that seemed to require the practice.[40] As in *Katz*, though, the Court in *Terry* had nothing to say about history. Like *Katz*, the opinion in *Terry* focused entirely on the present, not on the past.

And just as this focus led the Court in *Katz* to abandon the traditional definition of "searches and seizures," it led the *Terry* Court, after quoting *Katz* favorably,[41] to break, at least in part, with the traditional test for the reasonableness of a search or seizure—the "*per se*" rule that searches and seizures are presumptively unreasonable unless carried out pursuant to warrant based on probable cause.[42] Instead of struggling to fit the stop and frisk within one of the "few specifically established and well-delineated exceptions"[43] to that rule, or crafting a new, equally "well-delineated" exception, the *Terry* Court proceeded on the assumption that "the central inquiry under the Fourth Amendment" was "the reasonableness *in all the circumstances* of the particular governmental invasion."[44] The requisite basis for the search or seizure therefore depended on the severity of the intrusion involved. In particular, a stop and frisk was not "unreasonable" simply because it was not authorized by a warrant, or because the police lacked the probable cause they would need for an arrest.[45] *Terry* did not explicitly reject the Court's old approach to reasonableness, the approach that required all searches and seizures, subject to certain exceptions, to be authorized by a warrant based on probable cause. But it conspicuously failed to follow that approach, and set out a different, "sliding scale" approach in some detail.[46]

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[37] 392 U.S. 1 (1968).

[38] *Terry*, 392 U.S. at 4.

[39] In a report released three months before the Court decided *Terry*, the Kerner Commission placed police practices, including investigatory stops, at the top of the list of grievances leading to the riots. *See* REPORT OF THE NATIONAL ADVISORY COMMISSION ON CIVIL DISORDERS 143-44, 302-04 (1968). The *Terry* Court itself quoted the earlier finding of the President's Commission on Law Enforcement and Administration of Justice that "[i]n many communities, field interrogations are a major source of friction between the police and minority groups." *Terry*, 392 U.S. at 14 n.11 (quoting PRESIDENT'S COMMISSION ON LAW ENFORCEMENT AND ADMINISTRATION OF JUSTICE, TASK FORCE REPORT: THE POLICE 183 (1967)).

[40] *See Terry*, 392 U.S. at 9-15, 23-24 & n.21.

[41] *See id.* at 9 ("We have recently held that 'the Fourth Amendment protects people, not places.'").

In neither *Katz* nor *Terry* did the Court's majority opinion do much to clarify the implications of its new, ahistorical approach to the Fourth Amendment.[47] In both cases, Justice Harlan took up this task in a separate, concurring opinion. And in both cases he left a lasting mark on the law of search and seizure.

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[42] *Id.* at 21-22.

[43] *Katz*, 389 U.S. at 357.

[44] *Terry*, 392 U.S. at 19 (emphasis added).

[45] *See id.* at 26-27. A longstanding exception to the warrant requirement allowed warrantless, felony arrests based on probable cause. *See* United States v. Watson, 423 U.S. 411 (1976); Draper v. United States, 358 U.S. 307 (1959).

[46] For elaboration and praise of this aspect of *Terry*, see Christopher Slobogin, *Let's Not Bury* Terry: *A Call for Rejuvenation of the Proportionality Principle*, 72 ST. JOHN'S L. REV. 1053 (1998). For a less positive assessment, see Tracey Maclin, Terry v. Ohio*'s Fourth Amendment Legacy: Black Men and Police Discretion*, 72 ST. JOHN'S L. REV. 1271 (1998).

[47] *See, e.g.*, Edmund W. Kitch, Katz v. United States*: The Limits of the Fourth Amendment*, 1968 SUP. CT. REV. 133, 135 (noting that, in overturning "the property principle of *Olmstead* . . . [t]he Court has been eager to abandon the limiting principle of the past, but inattentive to the more difficult task of articulating and applying a limiting principle for the future").

Harlan's contribution in *Terry* was relatively modest. His concurring opinion said nothing to elucidate the Court's general, "sliding scale" methodology or to explain how it should be reconciled with the more traditional approach to assessing the reasonableness of searches and seizures. He did clarify, though, the rules governing field interrogations. Warren's opinion for the Court in *Terry* held that the Fourth Amendment permits a police officer to frisk a suspect for weapons when the officer can "point to specific and articulable facts" reasonably supporting an inference that the officer "is dealing with an armed and dangerous individual."[48] But Warren said nothing about when the police may stop a suspect in the first place.[49] Harlan answered this question by extending the Court's analysis.[50] Just as a frisk is justified by reasonable articulable suspicion that a suspect is armed and dangerous, a brief stop for questioning may be based on reasonable articulable suspicion that a suspect is about to commit a crime.[51] The Court subsequently endorsed this understanding of *Terry*,[52] and clarified that a stop can be based on reasonable articulable suspicion either of imminent criminal behavior or of a completed felony.[53]

Justice Harlan's contribution in *Katz* was more far-reaching than his contribution in *Terry*. He added to the Court's reasoning in *Katz* in two ways. First, Harlan explained that the Fourth Amendment protects "reasonable expectation[s] of privacy," which in turn require "first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable.'"[54] Second, notwithstanding the majority's rhetoric, Harlan opined that Fourth Amendment protection typically attaches to particular *locations*.[55] Of course, he agreed, "'the Fourth Amendment protects people, not places.'"[56] But "[t]he question . . . is what protection it affords to those people," and "generally . . . the answer to that question requires reference to a 'place.'"[57] In *Katz* itself, Harlan reasoned, the Fourth Amendment applied only because "an enclosed telephone booth is an area where, like a home, . . . occupants' expectations of freedom from intrusion are recognized as reasonable."[58]

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[48] *Terry*, 392 U.S. at 21, 27.

[49] Indeed, he thought the case before the Court did not present that question. *See id.* at 19 n.16.

[50] *Id.* at 32-34 (Harlan, J., concurring).

[51] *See id.*

[52] *See, e.g.*, Adams v. Williams, 407 U.S. 143 (1972).

[53] *See* United States v. Hensley, 469 U.S. 221 (1985).

[54] *Katz*, 389 U.S. at 360-61 (Harlan, J., concurring).

Both of Justice Harlan's suggestions in *Katz* had lasting effects on the law of search and seizure—but more, perhaps, by posing questions than by answering them. The Court lost little time endorsing Harlan's suggestion in *Katz* that Fourth Amendment protection requires a "reasonable expectation of privacy." The Court embraced this gloss on *Katz* in *Terry*[59] and has adhered to it since. But both the subjective and the objective prongs of the "reasonable expectation of privacy" test have raised difficulties. Conditioning Fourth Amendment protection on a suspect's "actual (subjective) expectation of privacy" has the odd consequence that people who suspect the government are spying on them may lose, for that very reason, much of their protection against what they fear.[60] That it turn means the government could defeat expectations of privacy simply by declaring its intention to violate them: for example, by "announcing half-hourly on television . . . that we were all being placed under comprehensive electronic surveillance."[61] To avoid these results, the Court has placed greater emphasis on the objective prong of Justice Harlan's test, the requirement "that the expectation be one that society is prepared to recognize as 'reasonable.'"[62] But how are judges to tell whether society is in fact "prepared to recognize" an expectation as "reasonable"? The inquiry has proved distressingly indeterminate, and many observers, on and off the Court, have thought it circular: an expectation of privacy is reasonable if the Court is willing to protect it.

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[55] *Id.*

[56] *Id.* at 361.

[57] *Id.*

[58] *Id.* at 360-61.

[59] *See Terry*, 392 U.S. at 9.

[60] *See, e.g.*, John M. Burkoff, *When Is a Search Not a "Search?" Fourth Amendment Doublethink*, 15 TOLEDO L. REV. 515, 527 (1984); John M. Junker, *The Structure of the Fourth Amendment: The Scope of the Protection*, 79 J. CRIM. L. & CRIMINOLOGY 1105, 1166 (1989).

[61] Amsterdam, *supra* note 13, at 384.

The Court has never explicitly adopted Justice Harlan's other gloss on *Katz*, the suggestion that Fourth Amendment protection, even if it does not require a trespass, still typically is limited to particular locations.[63] Harlan's protestations notwithstanding, this reading of *Katz* appears hard to reconcile with the Court's grand proclamation, in *Katz* and many subsequent cases, that "the Fourth Amendment protects people, not places." Once one says, as Harlan did, that the protection the Amendment provides to people "generally requires reference to a 'place,'" the most famous words in *Katz* seem drained of most of their content. And even the central holding of *Katz* starts to look trivial if one ties it, as Harlan did, to an analogy between telephone booths and homes. As one commentator asked at the time, "Would the case have been different if the pay phone had not been surrounded by a booth?"[64] The question has become more pressing as portable telephones have proliferated and pay telephones increasingly have lost their walls. But even without hindsight, it is easy to understand the Court's discomfort with Harlan's emphasis on the telephone booth as a physical location.[65]

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[62] *See* Hudson v. Palmer, 468 U.S. 517, 525 & n.7 (1984); Smith v. Maryland, 442 U.S. 735, 740 n.5 (1979); Burkoff, *supra* note 60, at 528-29.

[63] *Katz*, 389 U.S. at 361-62.

[64] Kitch, *supra* note 47, at 140.

[65] In England several years ago, I bought a game called "You Be the Judge," which requires players to guess how courts decided actual cases, with names "changed to protect the innocent." One question concerns the case of "The Incriminating Phone Booths," which is described as involving the FBI's surreptitious taping of calls "Karl" placed from two public telephone booths. (The defendant in *Katz* was actually named *Charles* Katz. Oddly enough, though, there was a Carl Katz who appeared in *Terry v. Ohio*; he was one of two men arrested along with the petitioner. *See* State v. Terry, 214 N.E.2d 114, 123 (Ohio App. 1966), *aff'd*, 392 U.S. 1 (1968).) The answer explains that the Supreme Court ruled for Karl, "because a telephone booth is like a home in that it is a protected area where a person can reasonably expect privacy." Every year I read this to my criminal

Still, while the Court keeps reiterating that "the Fourth Amendment protects people, not places,"[66] much of what the Court has said and done in search-and-seizure law has suggested Harlan was right to demur. In case after case—including, as we will see, in *Kyllo*—the Court has suggested that the Fourth Amendment offers heightened protection inside the home.[67] In other places—automobiles, highways, fields, offices, even back yards—Fourth Amendment protection, as a practical matter, drops off dramatically or vanishes entirely.[68]

Years before *Kyllo*, the Court indicated that Fourth Amendment protection against advanced technologies of surveillance would depend, too, on where a suspect was—and, in

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procedure students, and every year it gets a laugh—so contrary does it seem to the notion that "the Fourth Amendment protects people, not places."

[66] *See* Minnesota v. Carter, 525 U.S. 83, 88 (1998); Minnesota v. Olson, 495 U.S. 91, 96 n.5 (1990); Segura v. United States, 468 U.S. 796, 810 (1984); United States v. Mendenhall, 446 U.S. 544, 550 (1980); Smith v. Maryland, 442 U.S. 735, 739 (1979); United States v. Chadwick, 433 U.S. 1, 7, 9 (1977); United States v. Dionisio, 410 U.S. 1, 8 (1973); Desist v. United States, 394 U.S. 244, 246 (1969); Terry v. Ohio, 392 U.S. 1, 9 (1968).

[67] *See, e.g.*, Wilson v. Layne, 526 U.S. 603 (1999); Karo v. United States, 468 U.S. 705, 714 (1984); Segura v. United States, 468 U.S. 796, 810 (1984); Payton v. New York, 445 U.S. 573 (1980); United States v. United States Dist. Court, 407 U.S. 297, 313 (1972); Thomas K. Clancy, *What Does the Fourth Amendment Protect: Property, Privacy, or Security?*, 33 WAKE FOREST L. REV. 307, 345-46 (1998).

[68] *See, e.g.*, California v. Acevedo, 500 U.S. 565 (1991) (automobiles); Michigan Dep't of State Police v. Sitz, 496 U.S. 444 (1990) (highways); O'Connor v. Ortega, 480 U.S. 709 (1987) (offices); California v. Ciraolo, 476 U.S. 207 (1986) (backyards); Oliver v. United States, 466 U.S. 170 (1984) (fields). *See generally* Christopher Slobogin, *Technologically-Assisted Physical Surveillance: The American Bar Association's Tentative Draft Standards*, 10 HARV. J.L. & TECH. 383, 390-91 (1997) (noting that in determining what kinds of physical surveillance constitute "searches" under *Katz*, "[t]he most important factor has been the nature of the place subjected to physical surveillance," and that "when the surveillance is of an area outside a residence or similarly private area, courts have often found the Fourth Amendment irrelevant"). Not only do homes receive especially strong protection under the Fourth Amendment, but certain places—notably automobiles and prison cells—receive especially weak protection. The Court has held that a "diminished expectation of privacy . . . surrounds the automobile," United States v. Chadwick, 433 U.S. 1, 12 (1977), and that "the Fourth Amendment proscription against unreasonable searches does not apply within the confines of the prison cell." Hudson v. Palmer, 468 U.S. 517, 526 (1984).

particular, on whether he or she was at home. An electronic transmitter therefore effects no search or seizure when used to track a suspect on public highways, but implicates the Fourth Amendment the minute it sends signals from inside a home.[69] What of the danger that transmitters might allow the government to engage in round-the-clock tracking of our every movement outside our homes, entirely unregulated by the Constitution? The Justices said they would cross that bridge when they came to it. For the time being, at least, "reality hardly suggest[ed] abuse."[70]

The legacy of *Katz* is therefore conflicted. The Court has embraced Justice Harlan's suggestion that Fourth Amendment protection depends on a "reasonable expectation of privacy," but has never seemed certain what makes an expectation of privacy reasonable. And while repeatedly reaffirming that the "Fourth Amendment protects people, not places," the Court has simultaneously made clear that—just as Harlan opined—the extent of the protection "generally requires reference to a 'place.'" The decision in *Katz* seemed to promise a Fourth Amendment that was less tied to specific locations, and therefore somehow more modern. The Justices keep renewing that promise, but they have never figured out how to make good on it.

Inevitably, their frustration led to doubts about the methodological subtext of *Katz*, the subtext it shared with that other pillar of modern Fourth Amendment law, *Terry v. Ohio*—the notion that Fourth Amendment jurisprudence should look forward rather than back. And in time those doubts led the Justices—some of them more quickly than others—to try to return search-and-seizure jurisprudence to its roots in eighteenth-century common law.

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[69] *See* United States v. Karo, 468 U.S. 705 (1984); United States v. Knotts, 460 U.S. 276 (1983).

[70] *Knotts*, 460 U.S. at 283-84 (quoting *Zurcher v. Stanford Daily*, 436 U.S. 547, 566 (1978)).

B. Common Law[71]

When Justice Scalia joined the Supreme Court in 1986, few people expected him to remake Fourth Amendment law. He had rarely written about search-and-seizure law, either as a law professor or as an appellate judge. And for his first several years on the Court, his Fourth Amendment opinions were, in fact, relatively conventional—albeit written with his characteristic flair and strongly colored by his preference for clear rules. Justice Scalia initially seemed content simply to apply Fourth Amendment law as he found it, retaining the modernizing legacy of *Katz* and *Terry*.[72] Thus, for example, he wrote approvingly in one opinion that "[w]hile there are some absolutes in Fourth Amendment law, as soon as those have been left behind and the question comes down to whether a particular search has been 'reasonable,' the answer depends largely on the social necessity that prompts the search."[73]

But Justice Scalia soon soured on *Katz* and *Terry*, and on the entire edifice of search-and-seizure doctrine they supported. He discovered, as others have, that modern Fourth Amendment law is rife with contradictions and indeterminacy. Over time he gravitated to what he thought was a remedy for those maladies: an alternative vision of search-and-seizure jurisprudence, anchored securely in eighteenth-century common law.

He began by suggesting that "the Fourth Amendment's prohibition of 'unreasonable seizures,' insofar as it applies to seizure of the person, preserves for our citizens the traditional protections against unlawful arrest afforded by the common law."[74] Soon thereafter he broadened his claim: "the 'reasonableness' requirement of the Fourth Amendment," he argued, "affords the protection that the common law afforded."[75] This understanding of the Amendment would give search-and-seizure law clarity and stability, and it would allow the Amendment to do what any constitutional provision should do: put certain matters "beyond time, place, and judicial predilection."[76] The whole point of the Fourth Amendment, Scalia contended, was "to preserve that degree of respect for the privacy of persons and the inviolability of their property" that existed at common law.[77] Applying the Amendment might occasionally require the Court to balance law enforcement interests against privacy concerns, but only when "there was no clear practice, either approving or disapproving the type of search at issue, at the time the constitutional provision was enacted."[78] For all other questions, "the 'balance' has already been struck."[79]

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[71] Much of this section is drawn from a more detailed discussion in Sklansky, *supra* note 12, at 1745-70, 1774-1807.

[72] *See* Illinois v. Rodriguez, 497 U.S. 177 (1990); Nat'l Treasury Employees Union v. Von Raab, 489 U.S. 656, 681 (1989) (Scalia, J., dissenting); Brower v. County of Inyo, 489 U.S. 593 (1989); Arizona v. Hicks, 480 U.S. 321 (1987); Griffin v. Wisconsin, 483 U.S. 868 (1987); O'Connor v. Ortega, 480 U.S. 709, 730 (1987) (Scalia, J., concurring).

[73] *Nat'l Treasury Employees Union*, 489 U.S. at 686-87 (Scalia, J., dissenting).

This view of the Fourth Amendment—a view I have elsewhere termed "the new Fourth Amendment originalism"[80] —was obviously in considerable tension with the modernizing, ahistorical approach of *Katz* and *Terry*. Indeed, it was in large part a reaction against *Katz* and *Terry* and what they had wrought. (In part it was also a reaction against an older, less self-consciously modernizing aspect of the Court's Fourth Amendment jurisprudence, the notion that a search or seizure generally is "unreasonable" within the meaning of the Amendment unless it is authorized by a warrant.)[81] Scalia derided

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[74] County of Riverside v. McLaughlin, 500 U.S. 44, 60 (1991) (Scalia, J., dissenting); *see also* California v. Hodari D., 499 U.S. 621, 624 (1991) (consulting common-law decisions to determine the meaning of "seizure" in the Fourth Amendment).

[75] California v. Acevedo, 500 U.S. 565, 583 (1991) (Scalia, J., concurring).

[76] *McLaughlin*, 500 U.S. at 66.

[77] Minnesota v. Dickerson, 508 U.S. 366, 380 (1993) (Scalia, J., concurring).

[78] Vernonia Sch. Dist. 47J v. Acton, 515 U.S. 646, 652-53 (1995).

[79] *McLaughlin*, 500 U.S. at 60 (Scalia, J., dissenting).

[80] Sklansky, *supra* note 12, at 1744. Kathryn Urbonya has taken note of the same doctrinal development. *See* Kathryn R. Urbonya, *Determining Reasonableness Under the Fourth Amendment: Physical Force to Control and Punish Students*, 10 CORNELL J.L. & PUB. POL'Y 397, 411-12 (2001).

[81] *See Acevedo*, 500 U.S. at 583 (Scalia, J., concurring); Urbonya, *supra* note

Terry as an application of "the original-meaning-is-irrelevant, good-policy-is-constitutional-law school of jurisprudence."[82] And he complained that the chief legacy of *Katz*—Justice Harlan's "reasonable expectation of privacy" test—lacked any "plausible foundation in the text of the Fourth Amendment," and was "self-indulgent" to boot.[83] In practice, Scalia charged, "reasonable expectations of privacy" were simply "those expectations of privacy that this Court considers reasonable"—no more and no less.[84]

When he first voiced these sentiments, Justice Scalia spoke only for himself. But he soon found a convert in Justice Thomas. In *Wilson v. Arkansas*, his first opinion for the Court in a Fourth Amendment case, Thomas suggested that in determining the scope of the Amendment "we have looked to the traditional protections against unreasonable searches and seizures afforded by the common law at the time of the framing."[85] The case in question concerned the constitutional status of the traditional rule requiring law enforcement officers to knock and to announce their presence before searching a home.[86] To reach the unremarkable conclusion that, depending on all the circumstances, a violation of this rule *might* make a search "unreasonable" under the Fourth Amendment, Justice Thomas reviewed common-law decisions dating from the early seventeenth century up through the 1800s.[87] He ignored *Katz* and *Terry* entirely, and—significantly—he spoke for a unanimous Court. No Justice objected to the importance Thomas gave common law in assessing the constitutionality of searches and seizures.

What Justice Thomas suggested for the Court, Justice Scalia finally announced explicitly for the Court four years later. Writing for the majority in *Wyoming v. Houghton*,[88]

80, at 412.

[82] *Dickerson*, 508 U.S. at 382 (Scalia, J., concurring).

[83] Minnesota v. Carter, 525 U.S. 83, 97 (1998) (Scalia, J., concurring).

[84] *Id.*

[85] Wilson v. Arkansas, 514 U.S. 927, 931 (1995).

[86] *Id.* at 929.

[87] *Id.* at 931-33.

[88] 526 U.S. 295 (1999).

Justice Scalia explained that in applying the Fourth Amendment the Court asks first whether the challenged conduct "was regarded as an unlawful search or seizure under the common law when the Amendment was framed."[89] Only if "that inquiry yields no answer" will the Court assess the search or seizure "under traditional standards of reasonableness," balancing the intrusion on privacy against "the promotion of legitimate government interests."[90]

This was a good deal more emphatic than Justice Thomas's earlier suggestion for the Court that interpretation of the Fourth Amendment "may be guided" by eighteenth-century understandings,[91] and it drew an objection from Justice Stevens. "To my knowledge," he wrote in dissent, "we have never restricted ourselves to a two-step Fourth Amendment approach wherein the privacy and governmental interests at stake must be considered only if 18th-century common law 'yields no answer.'"[92] But only Justice Souter and Justice Ginsburg joined his opinion.[93]

The new Fourth Amendment originalism was not wholly novel, but it differed in important ways from its antecedents. Justice Story had called the Fourth Amendment "little more than the affirmance of a great constitutional doctrine of the common law,"[94] but the "great constitutional doctrine" he had in mind was probably not a set of specific rules but rather the general tradition of disallowing unreasonable searches and seizures.[95] Chief Justice Taft had written for the Court that

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[89] *Houghton*, 526 U.S. at 299.

[90] *Id.* at 299-300.

[91] *Wilson*, 514 U.S. at 931.

[92] *Houghton*, 526 U.S. at 311 n.3 (Stevens, J., dissenting).

[93] Justice Breyer joined the Court's opinion "with the understanding that history is meant to inform, but not automatically to determine, the answer to a Fourth Amendment question." *Id.* at 307 (Breyer, J., concurring).

[94] 2 JOSEPH STORY, COMMENTARIES ON THE CONSTITUTION OF THE UNITED STATES § 1902, at 679 (3d ed. 1958).

[95] *See* Sklansky, *supra* note 12, at 1786-87. The same may be said of the occasional suggestions by early-nineteenth-century courts that the Fourth Amendment and its state analogs were "nothing more than an affirmance of the common law." Wakely v. Hart, 6 Binn. 316, 319 (Pa. 1814). And the same may be said of then-Judge Cardozo's much later statement that New York's statutory version of the Fourth Amendment provided "immunity . . . not from all search and seizure,

"[t]he Fourth Amendment is to be construed in light of what was deemed an unreasonable search and seizure when it was adopted," but he had added that it should also be construed "in a manner which will conserve public interests as well as the interests and rights of individual citizens."[96] Before *Katz*, history was a dominant theme of search-and-seizure jurisprudence generally—but usually history was consulted to shed light on the central concerns of the Fourth Amendment, not to locate its precise commands.[97] And after *Katz*, the Supreme Court still occasionally consulted eighteenth-century common law as a guide to what searches and seizures were "unreasonable" within the meaning of the Fourth Amendment—but only as a very rough guide, "relevant" but certainly not "dispositive."[98]

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but from search and seizure unreasonable in light of common-law traditions." People v. Chiagles, 142 N.E. 583, 583 (N.Y. 1923). Justice Scalia cited *Chiagles* in his concurring opinion in *California v. Acevedo*. *See* 500 U.S. at 583. For a contrary reading of Story's remark—and, by implication, of Cardozo's—see Davies, *supra* note 23, at 618 n.190.

[96] Carroll v. United States, 267 U.S. 132, 149 (1925). In *Minnesota v. Dickerson*, Justice Scalia quoted the first half of Taft's direction but not the second half. 508 U.S. at 379-80 (Scalia, J., concurring).

[97] Justice Frankfurter, who "more than any of the other Justices sought the fourth amendment's meaning in its history," Amsterdam, *supra* note 13, at 397, treated the specific grievances giving rise to the Fourth Amendment as what Jed Rubenfeld has called "paradigm cases," and Frankfurter used them as Rubenfeld recommends: "to illuminate . . . what particular abuses most provoked those who framed and ratified the provision . . . and what it was about those abuses that most provoked them." Jed Rubenfeld, *Reading the Constitution as Spoken*, 104 YALE L.J. 1119, 1170 (1995); *see also* Amsterdam, *supra* note 13, at 396. He shared this method with the two most famous uses of history in Fourth Amendment jurisprudence: Justice Bradley's celebrated opinion for the Court in *Boyd v. United States*, 116 U.S. 616 (1886), and the equally celebrated dissent by Justice Brandeis in *Olmstead v. United States*, 277 U.S. 438 (1928). On *Boyd*, see, for example, JACOB W. LANDYNSKI, SEARCH AND SEIZURE AND THE SUPREME COURT 60-61 (1966). Regarding the Brandeis dissent in *Olmstead*, see, for example, JAMES BOYD WHITE, JUSTICE AS TRANSLATION: AN ESSAY IN CULTURAL AND LEGAL CRITICISM 149-57 (1990); Lawrence Lessig, *Fidelity in Translation*, 71 TEX. L. REV. 1165, 1239-40 (1993).

[98] Payton v. New York, 445 U.S. 573, 591 (1980); *see also* Tennessee v. Garner, 471 U.S. 1, 12-14 (1985); Steagald v. United States, 451 U.S. 204, 217 n.10 (1981); United States v. Watson, 423 U.S. 411, 415-23 (1976); Gerstein v. Pugh, 420 U.S. 103, 114 (1975). The Court stressed in *Payton* that "[t]here are important differences between the common-law rules relating to searches and seizures

Justice Scalia's new Fourth Amendment originalism, embraced by the Court in *Wyoming v. Houghton*, really was something new. History had played a role in Fourth Amendment law before, but never in quite this way. Never before had the Court treated the status of searches and seizures under eighteenth-century common law as the chief measure of their constitutionality today.

And for good reason. The Fourth Amendment does not forbid "searches and seizures illegal at common law"; it forbids "unreasonable searches and seizures." This language almost certainly was understood when the Fourth Amendment was framed and adopted the same way most people would understand it today: not as code for "searches illegal at common law," but as an open-ended reference to searches that are in some way inappropriate or excessive.[99] Nor does the available evidence suggest that anyone intended the Fourth Amendment to bar only searches and seizures proscribed by common law.[100] Nor, finally, is defining "reasonableness" by reference to eighteenth-century common law likely to do much to make Fourth Amendment law more stable or more coherent. Eighteenth-century common law was not the elaborate edifice of nationwide precedents that would later be codified in the Restatements; it was an incomplete hodgepodge of maxims, court rulings, and statutes that varied from place to place and changed over time.[101] To a great extent, therefore, an-

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and those that have evolved through the process of interpreting the Fourth Amendment in light of contemporary norms and conditions," and that "this Court has not simply frozen into constitutional law those law enforcement practices that existed at the time of the Fourth Amendment's passage." *Payton*, 445 U.S. at 591 n.33; *see also Garner*, 471 U.S. at 11-13 (quoting the latter statement with approval); *Steagald*, 451 U.S. at 217 n.10 (same).

[99] *See* Amsterdam, *supra* note 13, at 399; Sklansky, *supra* note 12, at 1776-84; Carol S. Steiker, *Second Thoughts About First Principles*, 107 HARV. L. REV. 820, 824 (1994). For a dissenting view, see Davies, *supra* note 23, at 686-93. For a response to Davies, see Sklansky, *supra* note 12, at 1780 n.250.

[100] *See* Sklansky, *supra* note 12, at 1784-93.

[101] *See* PERRY MILLER, THE LIFE OF THE MIND IN AMERICA: FROM THE REVOLUTION TO THE CIVIL WAR 121 (1965); Cloud, *supra* note 23, at 1716-17; Harry W. Jones, *The Common Law in the United States: English Themes and American Variations*, *in* POLITICAL SEPARATION AND LEGAL CONTINUITY 91, 98 (Harry W. Jones ed., 1976); Sklansky, *supra* note 12, at 1795-1807; Charles W. Wolfram, *The*

choring the Fourth Amendment in eighteenth-century common law is anchoring it in sand.[102] Further indeterminacy is added by the Court's caveat in *Houghton* that when common law "yields no answer," we are back to the present, balancing law enforcement interests against privacy concerns.[103]

Of course the new Fourth Amendment originalism does offer *some* guidance, if nothing else by suggesting that the most important *questions* to be raised about searches and seizures are the ones raised by eighteenth-century common law. But that may not be guidance worth following: the search-and-seizure law of the 1700s was entirely unconcerned with certain questions that it may be important for modern Fourth Amendment doctrine to address. One such set of issues are those involving race, class and gender equity—issues ignored by eighteenth-century rules of search and seizure, which systematically codified class privilege.[104] Another set concerns what government *does* with the information that it collects through searches and seizures—an issue in which eighteenth-century common law showed little interest, but which computerized monitoring and data management have made much more pressing.[105]

Constitutional History of the Seventh Amendment, 57 MINN. L. REV. 639, 665, 734 (1973).

[102] *Cf.* Urbonya, *supra* note 80, at 412 (arguing that "one can characterize common-law practices in a variety of ways," and therefore that "[d]rawing upon the common law as a primary basis for Fourth Amendment reaonableness analysis is no easy task").

[103] *See Houghton*, 526 U.S. at 299-300.

[104] *See* Sklansky, *supra* note 12, at 408-14. Current Fourth Amendment doctrine does not in fact place much emphasis on issues of equality. The Court has said that constitutional challenges to discrimination should be raised under "the Equal Protection Clause, not the Fourth Amendment." Whren v. United States, 517 U.S. 806, 813 (1996). Still, many people today believe that the "reasonableness" of a search or seizure should depend in part on considerations of race, class and gender equity. *See, e.g.*, Amar, *supra* note 25, at 808-09; Amsterdam, *supra* note 13, at 401, 416-17; Devon W. Carbado, *(E)racing the Fourth Amendment*, 100 MICH. L. REV. 946 (2002); Tracey Maclin, *Race and the Fourth Amendment*, 51 VAND. L. REV. 333 (1998); Steiker, *supra* note 99, at 830-44; William J. Stuntz, *The Distribution of Fourth Amendment Privacy*, 67 GEO. WASH. L. REV. 1265, 1265-67 (1999).

[105] *See* Harold J. Krent, *Of Diaries and Data Banks: Use Restrictions Under the Fourth Amendment*, 74 TEX. L. REV. 49 (1995); Slobogin, *supra* note 68, at

Whatever its shortcomings, though, the approach to the Fourth Amendment championed by Justice Scalia throughout the 1990s and finally endorsed by the Court in *Houghton* represented a dramatic shift away from the modernizing, ahistorical jurisprudence of *Katz* and *Terry*. If *Katz* and *Terry* focused Fourth Amendment law more single-mindedly on present-day problems than it ever had been focused before, the new Fourth Amendment originalism veered just as far in the other direction, fixing the gaze of search-and-seizure firmly on the past. Not for nothing had Akhil Amar described Scalia's new method, before the Court adopted it, as a "'frozen in amber' approach to Fourth Amendment reasonableness."[106]

Perhaps because the new Fourth Amendment originalism *was* so radical, the Supreme Court has seemed unsure how fully to embrace it. Shortly after *Houghton* seven members of the Court reaffirmed, in an opinion authored by Justice Thomas, that "[i]n deciding whether a challenged governmental action violates the [Fourth] Amendment, we have taken care to inquire whether the action was regarded as an unlawful search and seizure when the Amendment was framed."[107] One week later, when the Court held a home arrest "unreasonable" under the Fourth Amendment because the police had brought along reporters, Chief Justice Rehnquist began his analysis for the Court with Blackstone's remarks about the sanctity of the home, and with the 1604 decision in *Semayne's Case*, the source of the maxim that "the house of every one is to him as his castle and fortress"[108]—thereby suggesting that even when no pre-enactment authorities were remotely on point, the common law remained the prime measure of Fourth Amendment reasonableness.[109] In other search-and-seizure

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402; Jeffrey Rosen, *Silicon Valley's Spy Game,* N.Y. TIMES, Apr. 14, 2002, at § 6 (Magazine), at 46; *infra* note 258 and accompanying text.

[106] Amar, *supra* note 25, at 818 & n.230.

[107] Florida v. White, 526 U.S. 559, 563 (1999). Justice Stevens dissented, joined only by Justice Ginsburg. *See id.* at 567 (Stevens, J., dissenting).

[108] Wilson v. Layne, 526 U.S. 603, 609-10 (1999) (quoting Semayne's Case, 77 Eng. Rep. 194 (K.B. 1604) and 4 WILLIAM BLACKSTONE, COMMENTARIES *223).

[109] *Id.* Chief Justice Rehnquist spoke in this portion of his opinion for a unanimous Court. Justice Stevens dissented only from a later portion of the opinion, which found the officers entitled to qualified immunity because the constitutional

cases after *Houghton*, though, the Court ignored common law and instead turned for guidance to *Katz*, *Terry*, and their progeny.[110] And in one case five members of the Court, led by Justice Souter, reaffirmed that "[i]n reading the Amendment, we are guided by 'the traditional protections against unreasonable searches and seizures afforded by the common law at the time of the framing,'" but also renewed the suggestion that this history is "relevant" but not "dispositive."[111]

It was in this context that the Court decided *Kyllo v. United States*.

II. THE CONTENT OF *KYLLO*

The Supreme Court's ruling in *Kyllo v. United States* addressed the constitutionality of an investigative step taken almost a decade earlier in the coastal town of Florence, Oregon.[112] A task force of federal and state narcotics officers suspected Danny Lee Kyllo was growing marijuana in his home,

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prohibition of media "ride-alongs" had not been "clearly established." *Wilson*, 526 U.S. at 616-18. And by this point even Justice Stevens seemed to fight on the terrain of the new Fourth Amendment originalism: he argued that to find media ride-alongs constitutional would require "reevaluation" of "the rule in *Semayne's Case*." *Id.* at 622 (Stevens, J., dissenting). Like much of the historiography of the new Fourth Amendment originalism, this was something of a stretch. The actual decision in *Seymane's Case* declared the home a "castle and fortress" only against entries to vindicate private interests, not in cases in which the King was a party. *See Semayne's Case*, 77 Eng. Rep. at 195-96. This limitation was apparently well known at the time of the adoption of the Fourth Amendment, and it elsewhere has been noted by the Court. *See* Payton v. New York, 445 U.S. 573, 592 (1980); *id.* at 605 (White, J., dissenting); Sklansky, *supra* note 12, at 1761 n.143.

[110] *See* Illinois v. McArthur, 531 U.S. 326 (2001) (finding that temporary eviction of suspect from his home pending issuance of search warrant was not an "unreasonable" seizure); City of Indianapolis v. Edmond, 531 U.S. 32 (2000) (striking down highway checkpoints aimed at curtailing drug trafficking); Bond v. United States, 529 U.S. 334 (2000) (concluding that squeezing the baggage of bus passengers to feel for contraband is a "search"); Florida v. J.L., 529 U.S. 266 (2000) (disapproving a stop and frisk based solely on an anonymous tip that the suspect was carrying a gun); Illinois v. Wardlow, 528 U.S. 119 (2000) (approving an investigatory stop based on the suspect's flight from police in an area known for drug trafficking).

[111] Atwater v. City of Lago Vista, 532 U.S. 318, 326, 1543 (2001) (quoting Wilson v. Arkansas, 514 U.S. 927, 931 (1995), and Payton v. New York, 445 U.S. 573, 591 (1980)).

[112] 533 U.S. 27, 29-30 (2001).

which was part of a triplex.[113] To confirm their suspicions and to generate sufficient evidence to get a search warrant, they looked for indications that Kyllo was using the high-intensity lights typically needed for indoor cultivation of marijuana.[114] The agents checked the records of the local power company and concluded that Kyllo used an usually large amount of electricity.[115] Then they drove out to the triplex at night and aimed a "thermal imager" at it from the surrounding streets.[116]

A thermal imager is essentially a video camera that records infrared radiation—i.e., heat—instead of visible light.[117] The brochure for the particular device pointed at Kyllo's home, the Agema Thermovision 210, boasted that the device was "sensitive to differences as small as 0.9 F" and could "detect and delineate objects or persons in complete darkness, or under natural cover, as far away as 1500 feet."[118] More to the point for the officers investigating Kyllo, it could measure the heat radiated out from the wall of a building. When the agents aimed the Thermovision 210 at the triplex in Florence, Oregon, it showed that one wall of Kyllo's residence, and the roof over his garage, were warmer than the rest of the home, and much warmer than the walls and roofs of the other two units in the triplex.[119]

Armed with these results and the records of Kyllo's electricity usage, the officers secured a federal warrant to search

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[113] *Kyllo*, 533 U.S. at 29.

[114] *Id.*

[115] *Id.*

[116] *Id.* at 29-30.

[117] *See, e.g.,* Michael L. Huskins, Comment, *Marijuana Hot Spots: Infrared Imaging and the Fourth Amendment*, 63 U. CHI. L. REV. 655, 658-64 (1996). For examples of pictures produced by thermal imagers, see, for example, http://www.leta.org/images.htm (last visited June 26, 2002) (maintained by Law Enforcement Thermographers' Association).

[118] The brochure is quoted in United States v. Kyllo, 140 F.3d 1249, 1254 (9th Cir. 1998), *superceded,* 190 F.3d 1041 (9th Cir. 1999), *rev'd,* 533 U.S. 27 (2001).

[119] *Kyllo*, 533 U.S. at 30. Images from the videotape are reproduced as an appendix to the dissent by Justice Stevens. *See id.* at 51. For higher-quality copies, see http://supct.law.cornell.edu/supct/pdf/99-8508P.ZD (last visited June 26, 2002).

Kyllo's home.[120] Inside, they found more than a hundred marijuana plants.[121] Kyllo was indicted for growing marijuana, and he moved to suppress the evidence seized in his home.[122] Thus began a long, back-and-forth legal battle over the legacy of *Katz v. United States*—a battle fought out in eight published opinions over the course of nine years.

A. Kyllo *in the Lower Courts*

Kyllo argued that pointing the thermal imager at his home was a "search" within the meaning of the Fourth Amendment, and consequently that it was illegal without a warrant, and that the warrant ultimately issued for a search of his home was tainted by the earlier, warrantless monitoring.[123] The district court rejected the initial premise, that the use of the thermal imager was a "search."[124] In a terse paragraph, the district court suggested three reasons for its result: (1) "waste heat" from a home is like garbage left for collection, which the Supreme Court has held is unprotected by any reasonable expectation of privacy;[125] (2) there was no "intrusion" into Kyllo's residence; and (3) the thermal imager did not disclose any "intimate details" from within the home.[126]

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[120] *Kyllo*, 533 U.S. at 30.

[121] *Id.*

[122] *Id.*

[123] *Kyllo*, 190 F.3d 1041, 1045 (9th Cir. 1999), *rev'd*, 533 U.S. 27 (2001). He also argued that the warrant ultimately issued for a search of his home was illegal because the agents misled the magistrate regarding matters others than the thermal imaging, and that the involvement of National Guard personnel in the task force investigating him violated the Posse Comitatus Act. These arguments were rejected in stages by the district court and the Ninth Circuit, and Kyllo did not pursue them before the Supreme Court. *See* United States v. Kyllo, 190 F.3d 1041, 1047 (9th Cir. 1999), *rev'd on other grounds,* 533 U.S. 27 (2001); United States v. Kyllo, 37 F.3d 526, 528-29 (9th Cir. 1994); United States v. Kyllo, 809 F. Supp. 787, 792-93 (D. Or. 1993), *rev'd on other grounds*, 37 F.3d 526 (9th Cir. 1994).

[124] *Kyllo*, 809 F. Supp. at 791-92.

[125] *See* California v. Greenwood, 486 U.S. 35 (1988).

[126] *Kyllo*, 809 F. Supp. at 792, *rev'd*, 37 F.3d 526 (9th Cir. 1994). For the point about "waste heat," the district court cited *United States v. Penny-Feeney*, 773 F. Supp. 220 (D. Haw. 1991), which held that a thermal imager violated no actual, subjective expectation of privacy where the suspects took no steps to prevent

The Ninth Circuit seemed to find the third argument most important. Writing for a unanimous panel, Judge Norris took note of the Supreme Court's remarks in *Dow Chemical Co. v. United States*,[127] a case upholding high-magnification aerial surveillance of an industrial facility.[128] The Justices there had suggested that "surveillance of private property by using highly sophisticated surveillance equipment not generally available to the public . . . might be constitutionally proscribed absent a warrant," but they had concluded that the photographs in the case before them were "not so revealing of intimate details as to raise constitutional concerns."[129] Because the district court in *Kyllo* had held no hearings on the capabilities of the Thermovision 210, the court of appeals remanded for an inquiry into what details the thermal imager actually could reveal.[130]

After dutifully hearing evidence on this question, the district court found that the device displayed only "a crude visual image of the . . . house" and could not "show any people or activities within the walls of the structure."[131] The district court therefore reiterated its conclusion that "[n]o intimate details of the home were observed." The trial judge also took the opportunity to remind the Ninth Circuit that the Thermovision 210 was "a non-intrusive device which emits no rays or beams," and that it detects only "surface waste heat."[132]

These findings might have satisfied the panel that heard the first appeal in *Kyllo*, but the second appeal went to a different panel. The new panel was unconvinced by the district court's reasoning. Writing for the majority, Judge Merhige

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"heat waste" or "abandoned heat" heat from escaping from their residence. *Penny-Feeney*, 773 F. Supp. at 225-26. The argument was stronger in *Penny-Feeney* than in *Kyllo*, because the defendants in the earlier case had "used exhaust fans and various other means to vent the heat outside of the premises." *Id.* at 225.

[127] 476 U.S. 227 (1986).

[128] *Kyllo*, 37 F.3d at 531 n.3.

[129] *Dow Chem. Co.*, 476 U.S. at 238.

[130] 37 F.3d at 531.

[131] U.S. v. Kyllo, No. CR. 92-51-FR, 1996 WL 125594, at *2 (D. Or. Mar. 15, 1996).

[132] *Id.*

distinguished *Dow Chemical* on the ground that the search in this case was of a *home*.[133] Crude as it was, the Thermovision 210 might reveal household activities such as use of showers, bathtubs, or household appliances, and even "routine and trivial activities conducted in our homes" were "sufficiently 'intimate'" to merit Fourth Amendment protection.[134] Moreover, Judge Merhige warned that "technology improves at a rapid pace, and much more powerful and sophisticated thermal imagers are being developed which are increasingly able to reveal the intimacies that we have heretofore trusted take place in private."[135]

Judge Merhige also rejected "the 'heat waste' analogy."[136] He noted that several other circuits had drawn this analogy in concluding that thermal imaging intrudes on no actual, subjective expectation of privacy.[137] But he reasoned that the relevant question was not whether Kyllo expected privacy in the heat radiating from his house, but rather whether he expected privacy in what the thermal imager used that heat to reveal—namely, his activities inside the house.[138] As to those activities, Merhige concluded, Kyllo clearly had an actual, subjective expectation of privacy.[139] And given the special protection the Fourth Amendment provides to the home, Merhige thought Kyllo's expectation was objectively reasonable.[140]

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[133] United States v. Kyllo, 140 F.3d 1249, 1255 (9th Cir. 1998), *superceded*, 190 F.3d 1041 (9th Cir. 1999), *rev'd*, 533 U.S. 27 (2001).

[134] *Id.*

[135] *Id.*

[136] *Id.* at 1253.

[137] *Id.*, *citing* United States v. Robinson, 62 F.3d 1325, 1328-29 (11th Cir. 1995); United States v. Myers, 46 F.3d 668, 669-70 (7th Cir. 1995); United States v. Pinson, 24 F.3d 1056, 1058 (8th Cir. 1994). By contrast, when holding that garbage left for collection is unprotected by the Fourth Amendment, the Supreme Court had reached no conclusion regarding the existence of an actual, subjective expectation of privacy, and instead had reasoned simply that such an expectation would not be "objectively reasonable." *Greenwood*, 486 U.S. at 39 (noting "[i]t may well be that respondents did not expect that the contents of their garbage bags would become known to the police or other members of the public").

[138] *Kyllo*, 140 F.3d at 1253. On this point Judge Merhige followed *United States v. Cusumano*, 67 F.3d 1497, 1502 (10th Cir. 1995), *vacated on other grounds*, 83 F.3d 1247 (10th Cir. 1996).

[139] *Kyllo*, 140 F.3d at 1253-54.

In a short dissent, Judge Hawkins raised the remaining argument the district court had advanced: the "non-intrusive" nature of thermal imaging.[141] A search, Judge Hawkins reasoned, requires "an intrusion; a non-consensual invasion of protected space."[142] Because the thermal imager "intruded into nothing" and simply "measured the heat emanating from and on the outside of a house," it was not covered by the Fourth Amendment.[143]

He had an opportunity to elaborate the following year, after the panel agreed to rehear the case and Judge Merhige, a district judge who had sat by designation, was replaced by Judge Brunetti. Judge Brunetti came to share Judge Hawkins's view of the case, and so Judge Hawkins found himself writing for the majority. He noted again that thermal imaging is "non-intrusive"—indeed, he analogized the monitoring of heat radiating from a home to the sniffing of odors by a dog trained to detect narcotics.[144] But Judge Hawkins devoted the bulk of the panel's new opinion to advancing precisely the two arguments Judge Merhige had rejected. First, Kyllo had no actual, subjective expectation of privacy, because he took no steps to stop heat from radiating out from his home.[145] Second, the thermal imager "did not expose any intimate details of Kyllo's life," but simply "indicated amorphous 'hot spots' on the roof and exterior wall."[146] And unlike Judge Merhige, Judge Hawkins thought the future potential of thermal imaging irrelevant: "[w]hile this technology may, in other circumstances, be or become advanced to the point that its use will step over the edge . . . into impermissible warrantless search, we find no violation of the Fourth Amendment *on these facts*."[147]

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[140] *Id.* at 1255.

[141] *Id.*

[142] *Id.*

[143] *Id.*

[144] United States v. Kyllo, 190 F.3d 1041, 1046 (9th Cir. 1999), *rev'd*, 533 U.S. 27 (2001). The Supreme Court had held in *United States v. Place*, 462 U.S. 696 (1983), that sniffing of luggage by a dog trained to detect narcotics is not a search, but the Court there emphasized not the non-invasive nature of the sniffing, but the fact that "the sniff discloses only the presence or absence of narcotics, a contraband item." *Place*, 426 U.S. at 707.

[145] *Kyllo*, 190 F.3d at 1046.

[146] *Id.*

Judge Noonan, who had joined Judge Merhige's earlier opinion for the panel, filed a dissent, which reiterated and amplified Judge Merhige's arguments.[148] Like Judge Merhige, Judge Noonan stressed that the surveillance here was of a *home*.[149] And like Judge Merhige, he rejected the analogy to "waste heat," and argued that Kyllo's critical expectations were those regarding "the privacy of the interior of his home."[150] Indeed, Judge Noonan argued, it was particularly senseless to focus on Kyllo's expectations regarding the heat radiating from his home, because he almost certainly had no such expectations one way or the other.[151] It was also senseless, Judge Noonan thought, to focus on the absence of any physical intrusion, because *Katz* made clear that "a forbidden search can occur even when no trespass is involved."[152] And he ridiculed the idea that the crude nature of the Thermovision 210 rendered its warrantless use constitutional: "It is as though if your home was searched by a blind policeman you would have suffered no constitutional deprivation. . . . The machine as blind or blundering constable does not pass the criteria of the Fourth Amendment."[153] Thermal imaging raised fears for Judge Noonan of "Orwellian surveillance," and he agreed with Judge Merhige that even "the present, not potential" capabilities of thermal imaging violated reasonable expectations of privacy when the device was used to detect activities within a home.[154]

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[147] *Id.* (emphasis added).

[148] *Id.* at 1047-49 (Noonan, J., dissenting).

[149] *Id.* at 1048, 1049 ("I start with the proposition that '[t]he sanctity of the home is not be disputed.' . . . Society has determined that it is reasonable for the home to be a citadel safe from warrantless inspection") (quoting Segura v. United States, 468 U.S. 796, 810 (1984)) (alteration in original).

[150] *Id.* at 1049.

[151] *Id.*

[152] *Id.* at 1048.

[153] *Id.* at 1050, 1051. Indeed, Judge Noonan pointed out the majority's argument to the contrary was the opposite of the argument that the Supreme Court had found justified warrantless dog sniffs—"they revealed only contraband and nothing else." *Id.* at 1051.

Among the most interesting aspects of the various lower court opinions in *Kyllo* was their complicated relationship to the legacy of *Katz*. Each side of the debate that played itself out in these opinions rejected a different part of that legacy. By focusing repeatedly on the "non-intrusive" nature of thermal imaging—the fact that a thermal imager "emits no rays or beams" and just monitors "surface waste heat"—the district court and later Judge Hawkins seemed to disregard one of the central holdings of *Katz*, the Supreme Court's rejection of the notion that a search requires some kind of a trespass or physical invasion.[155] On the other hand, the stress that Judge Merhige and Judge Noonan placed on the special sanctity of the home seemed in tension with the most famous part of *Katz*, the notion that "the Fourth Amendment protects people, not places." While each side in the lower court debates in *Kyllo* thus rejected part of what *Katz* seemed to stand for, both sides also were quite strikingly faithful to a more fundamental feature of *Katz*, its temporal orientation. None of the lower court opinions looked to eighteenth-century common law, or to history in general, for guidance; all of these opinions shared the focus of *Katz* on present-day concerns. They differed again, though, on a different question of temporal orientation, the degree to which they worried about the future. For the district court and for Judge Hawkins, the only important questions concerned the capabilities of thermal imagers *today*—and, more particularly, the capabilities of the specific instrument used in the investigation of Danny Lee Kyllo. Judge Merhige and Judge Noonan made clear they found this focus on the present too single-minded; they thought a sensible resolution of the case required some attention to what thermal imagers were likely to be able to do in the future. So while all of the lower court opinions in *Kyllo* were faithful to the temporal reorientation of Fourth Amendment law in *Katz*, they fought over the precise nature of that reorientation.

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[154] *Id.* at 1050-51.

[155] The frequent references in the lower court opinions to the "non-intrusive" nature of thermal imaging are of course ambiguous: "intrusive" can mean either "physically invasive" or, more broadly, violating privacy in any way. The second panel opinion, written by Judge Hawkins, in fact took care to argue that the Thermovision 210 did not penetrate the walls of Kyllo's home either "literally or figuratively." *Id.* at 1046. But the frequent references by Judge Hawkins and by the district court to the way the device operated—projecting no rays or beams, and simply monitoring heat radiating from the outside surface of the home—strongly suggested that the absence of a "search" depended at least in part on the absence of a trespass.

B. Kyllo *in the Supreme Court*

Writing for the four dissenters in *Kyllo*, Justice Stevens echoed each of themes the district court and Judge Hawkins had sounded below. He stressed the absence of any "physical penetration":[156] thermal imagery, Justice Stevens noted repeatedly, is "off-the-wall" rather than "through-the-wall" surveillance.[157] He compared the heat emanating from a home to "discarded garbage," and to "aromas" that "enter the public domain if and when they leave a building."[158] He twice drew attention to the district court's finding that the surveillance in this case revealed "[n]o intimate details of the home."[159] And he argued for "concentrating on the rather mundane issue" presented by the capabilities of the thermal imager used in *this* case, rather than trying "to craft an all-encompassing rule for the future."[160]

Justice Stevens threw in some additional arguments. He distinguished, for example, between actually *searching* inside a home and merely drawing *inferences* about the inside of the home.[161] And he suggested that there were strong practical reasons to keep surveillance techniques like thermal imaging constitutionally unregulated: the police, he argued, "should not have to avert their senses or their equipment from detecting emissions in the public domain such as excessive heat, traces of smoke, suspicious odors, odorless gases, airborne particulates, or radioactive emissions, any of which could identify hazards to the community."[162] But both these points felt like filler. Neither made sense without the more basic contention that there was no reason to fear surveillance technology that was "non-intrusive," monitored emissions that no one could reasonably expect would remain private, and detected no "intimate details." The dissent in *Kyllo* added little of substance to the arguments advanced by Judge Hawkins for the Ninth Circuit and, before that, by the district court.

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[156] *Kyllo*, 533 U.S. at 43 (Stevens, J., dissenting); *see also id.* at 45 (contrasting thermal imaging with "physical entry of the home") (quoting United States v. United States Dist. Court, 407 U.S. 297, 313 (1972)).

[157] *Id.* at 41-46, 50-51.

[158] *Id.* at 43-44.

[159] *Id.* at 41 n.1, 50; *see also id.* at 43 (arguing that "no details regarding the interior of petitioner's home were revealed"), 45 (contending that "the privacy interest is at best trivial").

[160] *Id.* at 51.

[161] *See id.* at 42-44, 50-51.

Justice Scalia's opinion for the majority was a different story. It, too, echoed themes sounded in the courts below, in this case by Judge Merhige and Judge Noonan. Justice Scalia stressed the fact that the surveillance here was of a home.[163] He pointed out that *Katz* made the absence of a physical intrusion irrelevant.[164] He distinguished *Dow Chemical* on the ground that it involved surveillance of an industrial facility, "which does not share the Fourth Amendment sanctity of the home."[165] He made explicit what Judge Merhige and Judge Noonan had implied, that "[i]n the home . . . *all* details are intimate details."[166] And like Judge Merhige and Judge Noonan, Justice Scalia found a focus on the present capabilities of thermal imagers insufficient. "[T]he rule we adopt," he explained, "must take account of more sophisticated systems that are already in use or in development."[167]

But Justice Scalia added to these arguments in significant ways. His additions, in fact, are much of what is most arresting and important about the Court's opinion in *Kyllo*. For Justice Scalia took the opportunity in *Kyllo* to do what Judge Merhige and Judge Noonan likely did not feel free to do. He used the case to reconsider both the legacy of *Katz* and the proper relationship between the Fourth Amendment and common law.

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[162] *Id.* at 45.

[163] *See id.* at 31. Justice Scalia used the word "home" twice in the first sentence of his opinion, and three times in the next three sentences. *Id.* at 29. He quoted approvingly from the Court's announcement in *Silverman v. United States*, 365 U.S. 505, 511 (1961), that "'[a]t the very core' of the Fourth Amendment 'stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion.'" 533 U.S. at 31.

[164] *Id.* at 35-36.

[165] *Id.* at 37.

[166] *Id.*

[167] *Id.* at 36. This itself was a noteworthy divergence from previous decisions in which the Court had applied *Katz* to instruments of technological surveillance solely by measuring the current intrusion on privacy, leaving future threats to future cases. *See supra* note 70 and accompanying text.

Justice Scalia began this reconsideration by acknowledging that the "reasonable expectation of privacy" test set forth in *Katz* "has often been criticized as circular, and hence subjective and unpredictable."[168] He did not quarrel much with that criticism as a general matter—not a surprising failure, since he had made the criticism himself.[169] But while Scalia agreed that overall the *Katz* test "may be difficult to refine," he suggested that in one context—searches of homes—there was a path out of the circularity. The path ran backwards in time to the common law:

> [I]n the case of the search of the interior of homes—the prototypical and hence most commonly litigated area of protected privacy—there is a ready criterion, with roots deep in the common law, of the minimal expectation of privacy that *exists*, and that is acknowledged to be *reasonable*. To withdraw protection of this minimum expectation would be to permit police technology to erode the privacy guaranteed by the Fourth Amendment.[170]

Consequently, Justice Scalia announced for the Court that a "search" takes place whenever "sense-enhancing technology" gives the police information about the home they could otherwise obtain only by physical intrusion—"at least where (as here) the technology in question is not in general public use."[171] The point, he explained, is to preserve "that degree of privacy against government that existed when the Fourth Amendment was adopted."[172]

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[168] *Kyllo*, 533 U.S. at 34.

[169] *See supra* notes 83-84 and accompanying text.

[170] *Kyllo*, 533 U.S. at 34.

[171] *Id.* The Court appears to have taken this test from Professor James Tomkovicz's *amicus* brief for the ACLU and the National Association of Criminal Defense Lawyers. *See* Brief of Amicus Curiae of the National Association of Criminal Defense Lawyers and the American Civil Liberties Union at 26-27; Kyllo v.

At first glance this looks like more of the new Fourth Amendment originalism: a continuation of the backward-looking approach to search-and-seizure law that Justice Scalia championed off and on throughout the 1990s, and that the Court finally endorsed in *Wyoming v. Houghton*.[173] And there were more signs of this approach sprinkled throughout Justice Scalia's opinion for the Court in *Kyllo*. There was a reference to the meaning of the term "search" in the eighteenth century.[174] There was an invocation of "the original meaning of the Fourth Amendment."[175] There was a cranky remark about "our doctrine that warrantless searches are presumptively unconstitutional" and the Court's efforts to preserve that doctrine "somewhat more intact."[176] And there was a reaffirmation of that presumption—but only as applied to searches of homes.[177] It is easy to see why some observers thought the Court's opinion in *Kyllo* reactionary, "an ironic return to the pre-*Katz* world."[178]

But there was a good deal more to the decision than that.

United States, 533 U.S. 27 (2001) (No. 99-8508). As proposed in the amicus brief, however, the test lacked the caveat regarding technologies "in general public use." *See id.*

[172] *Kyllo*, 533 U.S. at 34.

[173] 526 U.S. 295 (1999); *see supra* notes 74-93 and accompanying text.

[174] *Kyllo*, 533 U.S. at 33 n.1. "When the Fourth Amendment was adopted, as now, to 'search' meant '[t]o look over or through for the purpose of finding something; to explore; to examine by inspection; as, to *search* the house for a book; to *search* the woods for a thief." *Id.* (quoting NOAH WEBSTER, AN AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE 66 (1828) (reprint 6th ed. 1989)).

[175] *Kyllo*, 533 U.S. at 40.

[176] *Id.* at 32.

[177] *See id.* at 33. Even this limited reaffirmation of the warrant requirement was noteworthy, because it meant that calling thermal imaging of a home a "search" largely eliminated it as a law enforcement tactic. To get a warrant for thermal imaging the police will need probable cause that something illegal is occurring inside the house, and if they have that kind of probable cause, they can get a warrant to enter the house. In some cases they may prefer to use a thermal imager—if, for example, they want to keep the investigation secret for the time being. But those cases will be the exception rather than the rule.

[178] David Cole, *Scalia's Kind of Privacy*, NATION, July 23, 2001, at 6, *available at* 2001 WL 2132778.

Justice Scalia's opinion did not reject *Katz* wholesale, nor did it embrace all of the new Fourth Amendment originalism. In each respect the position Justice Scalia took for the Court was more nuanced and more interesting.

Start with the treatment of *Katz*. True, Justice Scalia's emphasis on "the Fourth Amendment sanctity of the home"[179] seems in tension with the idea that "the Fourth Amendment protects people, not places." But divergence from this aspect of *Katz* hardly started with *Kyllo*. Heightened Fourth Amendment protection in the home is a staple of search-and-seizure law, and the more general practice of tying Fourth Amendment privacy to particular places, *Katz* notwithstanding, stretches all the way back to Justice Harlan's concurring opinion in *Katz* itself.[180] And Justice Scalia was conspicuously faithful to other aspects of *Katz*, particularly the holding that a Fourth Amendment violation can occur without a trespass or physical intrusion.[181] Despite noting that "well into the 20th century . . . Fourth Amendment jurisprudence was tied to common-law trespass," Scalia was unapologetic about the manner in which *Katz* "decoupled" search-and-seizure law from property rights, and he derided as "mechanical" the notion that the Fourth Amendment protects only against physical intrusions.[182]

Moreover, the skepticism Justice Scalia expressed about the "reasonable expectation of privacy" test was relatively muted, particularly compared with what he had said in earlier cases. The Court's opinion in *Kyllo* did not call Justice Harlan's test "self-indulgent" or charge that it lacked "plausible foundation in the text of the Fourth Amendment."[183] The opinion conceded that "it *may* be difficult to refine *Katz*" when the test is applied to searches of "areas such as telephone booths, automobiles, or even the curtilage and uncovered portions of residences," but then suggested that for searches of homes—the core concern of the Fourth Amendment—the test produced a clear and sensible result.[184] And Justice Scalia even cast a little doubt on the general criticism of the "reasonable expectation of privacy" test as circular—a criticism in which he himself had previously joined. After citing examples of this criticism, including his own, Justice Scalia pointedly added a "but see" reference to *Rakas v. Illinois*, where the Court had suggested that "legitimate expectations of privacy" were defined "by reference to concepts of real or personal property law or to understandings that are recognized and permitted by society."[185] By tying reasonable expectations of privacy at least in part to property law, *Rakas* itself seemed to backtrack from the idea that "the Fourth Amendment protects people, not places." Again, though, that backtracking began in *Katz* itself, in the same concurring opinion that produced the "reasonable expectation of privacy" test.

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[179] *Kyllo*, 533 U.S. at 37.

[180] *See supra* notes 57-68 and accompanying text.

[181] *See Kyllo*, 533 U.S. at 32, 35.

[182] *Id.* at 31, 35.

[183] Minnesota v. Carter, 525 U.S. 83, 97 (1998) (Scalia, J., concurring).

Perhaps more significantly, Justice Scalia seemed in *Kyllo* to have grown more comfortable with the temporal reorientation of Fourth Amendment in *Katz.* He seemed less committed to anchoring the Fourth Amendment firmly in its past, at least in the manner he had previously proposed. In recent years, Justice Scalia and Justice Thomas repeatedly have turned for guidance in interpreting the Fourth Amendment to Chief Justice Taft's majority opinion in *Carroll v. United States*,[186] long familiar to students of criminal procedure as the source of the "automobile exception" to the warrant requirement, but not generally a favorite of the commentators.[187] Scalia and Thomas have invoked *Carroll* in support of the new Fourth Amendment originalism, but in doing so they have portrayed the opinion as more backward-looking that it really was. Taft wrote in *Carroll* that the Fourth Amendment should be "construed in the light of what was deemed an unreasonable search and seizure when it was adopted, *and* in a manner which will conserve public interests as well as the interests and rights of individual citizens."[188] This is a test with considerable ambiguity: what happens when eighteenth-century search-and-seizure rules do *not,* in light of modern realities, "conserve public interests as well as the interests and rights of individual citizens"? Scalia and Thomas have tended to avoid the ambiguity by ignoring the second part of Taft's formulation. In one opinion, for example, Justice Scalia quoted Taft's test but simply left off the second half.[189] But in *Kyllo* Justice Scalia quoted the entire sentence,[190] and he seemed to take to heart Chief Justice Taft's commitment to a Fourth Amendment jurisprudence that bridged past, present and future—even at the cost of jurisprudential ambiguity. "We must take the long view," Scalia wrote for the Court, "from the original meaning of the Fourth Amendment forward."[191]

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[184] *Kyllo*, 533 U.S. at 34 (emphasis added). For a different assessment of this aspect of the Court's opinion, see Richard H. Seamon, Kyllo v. United States *and the Partial Ascendance of Justice Scalia's Fourth Amendment*, 79 WASH. U.L.Q. 1013 (2001) (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=288415). Professor Seamon argues that *Kyllo* "at least weakly endorsed" earlier criticism of *Katz*, and that in fact "the *Kyllo* majority did not apply the *Katz* test to the case before it." *Id.* at 1022. He reaches the latter conclusion because, like the Ninth Circuit and the district court, he believes that "the sole inquiry" under *Katz* "should have been whether Kyllo reasonably expected the relative warmth of his roof and a side of his house to remain private." *Id.*

[185] *See Kyllo*, 533 U.S. at 34 (*citing* Rakas v. Illinois, 439 U.S. 128, 143 n.12 (1978)).

[186] 267 U.S. 132 (1925); *see* Sklansky, *supra* note 12, at 1766-67.

[187] *See, e.g.*, LANDYNSKI, *supra* note 97, at 90; Forrest R. Black, *A Critique of the Carroll Case*, 29 COLUM. L. REV. 1068, (1929); Davies, *supra* note 23, at 604-

Notwithstanding its ambiguity, that sounds like a different approach to the Fourth Amendment than the one Justice Scalia set forth for the Court in *Wyoming v. Houghton.*[192] One would think that taking "the long view" requires something other than simply checking to see if particular conduct "was regarded as an unlawful search or seizure under the common law when the Amendment was framed," and considering modern realities only if "that inquiry yields no answer."[193] Strictly speaking,

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[188] *Carroll*, 267 U.S. at 149 (emphasis added).

[189] *See* Minnesota v. Dickerson, 508 U.S. 366, 379 (1993) (Scalia, J., concurring).

[190] *See Kyllo*, 533 U.S. at 40. Professor Seamon has made the same point. *See* Seamon, *supra* note 184, at 1032.

[191] *Kyllo*, 533 U.S. at 40; *cf.* United States v. Ross, 456 U.S. 798, 806 (1982) (nicely capturing the ambiguity of *Carroll* by describing the case as grounded in considerations of "impracticability, viewed in historical perspective").

[192] 526 U.S. 295 (1999).

[193] *Houghton*, 526 U.S. at 299-300.

Justice Scalia's opinions for the Court in *Houghton* and *Kyllo* are not mutually inconsistent. But the opinions differ sharply in tone, and the underlying sensibility in *Kyllo* is far less backward-looking than in *Houghton*. For this reason alone, *Kyllo* seems in tension with the new Fourth Amendment originalism.

And there is more. Although Justice Scalia invokes common law in *Kyllo*, he does so in a different way than in *Houghton*. The Court's opinion in *Kyllo* does not look to the *content* of eighteenth-century rules of search and seizure; rather it looks to what those rules *accomplished*. The goal, Justice Scalia explains, is to guarantee "preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted."[194] This is a different enterprise than preserving the *rules* that existed when the Amendment was adopted, because changing conditions may mean that new restrictions are required to maintain old expectations of privacy against the government. The central question in *Kyllo*, Justice Scalia wrote, was "what limits there are upon this power of technology to shrink the realm of guaranteed privacy."[195] The very framing of the historical inquiry in *Kyllo*, therefore, was less resolutely backward-looking than the analysis mandated by *Houghton*.

As actually carried out by Justice Scalia, moreover, the *Kyllo* inquiry was even looser. For Justice Scalia made no effort in *Kyllo* to determine the *actual* degree of privacy Americans enjoyed against the government in 1789. This was probably wise, because the question turns out to have no simple answer. In fact, the "degree of privacy against government that existed when the Fourth Amendment was adopted" turns out to be even less determinate than whether particular conduct "was regarded as an unlawful search and seizure under the common law when the Amendment was framed." The problem is that the "degree of privacy" people enjoyed in the eighteenth century, even inside their own homes, depended strongly on who they were.[196] In England, peers and members of Parliament received special protections against search and seizure, while the homes of the poor were freely examined for vagrants, poached game, and morals violations.[197] Colonial statutes largely followed the same pattern and added, in the South, the innovation of the slave patrol: military squads that routinely invaded "Negro Houses" and other dwellings that might harbor or provide arms to runaway slaves.[198] And on both sides of the Atlantic, political outsiders often found themselves with little or no privacy against the government—unless and until they became insiders, at which time they energetically employed against their own adversaries the same tactics they previously had condemned.[199]

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[194] *Kyllo*, 533 U.S. at 34. Justice Scalia had made a similar claim in his concurring opinion in *Minnesota v. Dickerson*, 508 U.S. 366 (1993). There he had written that the purpose of the Fourth Amendment was "to preserve that degree of respect for the privacy of persons and the inviolability of their property that existed when the provision was adopted." *Id.* at 380 (Scalia, J., concurring). But Scalia's analysis in *Dickerson* suggested what he elsewhere had made explicit, and what he later spelled out for the Court in *Houghton*: that the way to preserve eighteenth-century privacy was, in general, by applying eighteenth-century rules of search and seizure. *See* Sklansky, *supra* note 12, at 1754-61.

[195] *Kyllo*, 533 U.S. at 34.

Had Justice Scalia attempted a rigorous inquiry into the "degree of privacy" Americans enjoyed in their houses in 1789, he would have had great difficulty coming up with a clear answer. But he entirely avoided this problem, because he made no serious effort to describe eighteenth-century realities. Instead he contented himself with an invocation of the general notion of the "sanctity of the home,"[200] a notion that, as he noted, had "roots deep in the common law."[201] He was concerned less with history than with tradition, less with what the law actually did than with what the law came to understand itself as doing, and to claim that it had always done.

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[196] *See* Cloud, *supra* note 23, at 1717-19.

[197] *See* Cuddihy, *supra* note 23, at 43, 187, 668, 831; William Cuddihy & B. Carmon Hardy, *A Man's House Was Not His Castle: Origins of the Fourth Amendment to the United States Constitution*, 37 WM. & MARY Q. 371, 380 (1980). Even the fiercest critics of general warrants typically took for granted the legality of warrantless inspections for vagrants, as well as warrantless searches for evidence of treason. *See* Cuddihy, *supra* note 23, at 987-90.

[198] *See* LEONARD W. LEVY, ORIGINAL INTENT AND THE FRAMERS' CONSTITUTION 240 (1988); Cuddihy, *supra* note 23, at 838-39, 867, 1150-53, 1276-95, 1327; Cuddihy & Hardy, *supra* note 197, at 390-91. On slave patrols, see SALLY E. HADDEN, SLAVE PATROLS: LAW AND VIOLENCE IN VIRGINIA AND THE CAROLINAS (2001).

[199] *See, e.g.*, Cloud, *supra* note 23, at 1717-18.

[200] *Kyllo*, 533 U.S. at 37.

[201] *Id.* at 34.

Creating tradition out of reinvented history is a familiar method of jurisprudence, a method that itself dates back at least to Coke's seventeenth-century *Institutes*.[202] In particular, it is a method long associated with search-and-seizure law.[203] The most famous argument against the writs of assistance in colonial America—the failed challenge by James Otis in 1761 to renewal of the writs in Massachusetts—leaned heavily on history, but in a manner sometimes less sensitive to factual accuracy than to rhetorical coherence.[204] Justice Bradley's majority opinion in *Boyd v. United States*,[205] the Court's first major interpretation of the Fourth Amendment, also extracted broad principles from the past; it, too, is commonly praised not as historical scholarship, but as an exercise of legal creativity.[206] And there is a large element of fiction in the new Fourth Amendment originalism embraced by the Court in *Houghton*. The approach *Houghton* took to the Fourth Amendment—an approach Justice Scalia had championed throughout the 1990s—proceeds from the assumption that the common law of search and seizure was fixed, uniform, consistent and clear. In fact, as I have argued elsewhere, it was none of those things.[207]

The Court's looseness with history in *Kyllo*, therefore, does not distinguish the decision from *Houghton*, or from the new Fourth Amendment originalism more generally. But the Court in *Kyllo* was more forthright about what it was doing—or, at least, it engaged in less pretense that its inquiry was strictly empirical. The new Fourth Amendment originalism cloaks questions of fairness and expediency as scholarly disputes about eighteenth-century common law. Justice Scalia's opinion for the Court in *Houghton*, like some of his earlier concurring and dissenting opinions in Fourth Amendment cases, and like Justice Thomas's majority opinion in *Wilson v. Arkansas*,[208] often verged on the pedantic. "Trust me," these opinions seemed to say, "I've been to the library." That complaint cannot be made about *Kyllo*. There is nothing recondite about the Court's analysis of thermal imaging. Justice Scalia is explicit about the need to interpret the Fourth Amendment in ways that take account of scientific progress and that offer "workable," "practical guidance."[209] Coke, Hale and Blackstone make no appearance. The earliest decisions cited are *Boyd* and *Olmstead*—and neither case for guidance regarding what the law is or should be, but rather as sources of the "mechanical" view, now properly rejected, that a search requires a trespass.[210]

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[202] *See* H. TREVOR COLBOURN, THE LAMP OF EXPERIENCE: WHIG HISTORY AND THE INTELLECTUAL ORIGINS OF THE AMERICAN REVOLUTION 8 (1965); JAMES R. STONER, JR., COMMON LAW AND LIBERAL THEORY: COKE, HOBBES, AND THE ORIGINS OF AMERICAN CONSTITUTIONALISM 62-68 (1992); William Holdsworth, *Sir Edward Coke*, 5 CAMBRIDGE L.J. 332, 340-42 (1935); Cuddihy, *supra* note 23, at 215-33.

[203] *See* Sklansky, *supra* note 12, at 1753.

[204] *See* LEVY, *supra* note 198, at 227; Cuddihy, *supra* note 23, at 788-89.

[205] 116 U.S. 616 (1886).

[206] *See, e.g.*, LANDYNSKI, *supra* note 97, at 60-61.

[207] *See* Sklansky, *supra* note 12, at 1795-1807.

The only aspect of common law that Justice Scalia invokes in *Kyllo* is one for which he sees no need to cite any ancient authority: the "deep roots" of the notion that privacy within the home deserves special protection.[211] That proposition needs no archival support not just because Justice Stevens, in particular, could not be expected to challenge it.[212] It needs no such support because it is an assertion less about history than about tradition—i.e., about the meaning that Fourth Amendment doctrine, developed incrementally over decades by the Supreme Court, has come to attach to history. This kind of tradition is itself a time-honored focus of Fourth Amendment jurisprudence, including the opinions that Justice Scalia himself wrote in search-and-seizure cases during his first several years on the Court. In this respect, as well as others, *Kyllo* represents something of a return—but a return to a jurisprudence less anchored in the past.

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[208] 514 U.S. 927 (1995); *see supra* note 87 and accompanying text.

[209] *Kyllo*, 533 U.S. at 38-39 (*quoting* Oliver v. United States, 466 U.S. 170, 181 (1984)).

[210] *Id.* at 32, 35.

[211] *Id.* at 37-40.

[212] *See supra* note 109.

III. THE CONNOTATIONS OF *KYLLO*

Kyllo is less important for its result than for its jurisprudence. Justice Scalia's majority opinion works variations both on *Katz* and on the Court's recent turn toward common law for guidance in interpreting the Fourth Amendment. I have described those variations above, and now wish to assess their merits and long-term implications. I take up first the connotations of *Kyllo* for the new Fourth Amendment originalism, which are relatively straightforward, and then turn to the murkier implications of the decision for the legacy of *Katz*.

A. Common Law

Despite Justice Scalia's reference to "the original meaning of the Fourth Amendment"[213] and his invocation of a "criterion . . . with roots deep in the common law,"[214] the use of common law in *Kyllo* departs in two significant ways from its use in *Houghton* and in other opinions applying the new Fourth Amendment originalism. First, *Kyllo* asks a different question about the past: not whether the challenged government conduct would have constituted an illegal search or seizure at common law, but whether the conduct, if constitutionally unregulated, would "shrink the realm of . . . privacy . . . that existed when the Fourth Amendment was adopted."[215] Second, *Kyllo* goes about answering its question in a different way. The inquiry is less about history than about tradition.

Taken together, these two changes transform the new Fourth Amendment originalism from an effort to preserve eighteenth-century rules of search and seizure into an attempt to safeguard what the Court has come to understand to be the core components of the privacy valued by the Framers. These changes shift the Court's attention from the form that government conduct takes to the nature and degree of the intrusion it effects, and from eighteenth-century history to the Court's own evolving traditions.

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[213] *Kyllo*, 533 U.S. at 40.

[214] *Id.* at 34.

[215] *Id.*

They bring the Court remarkably close, in fact, to the question Anthony Amsterdam found lying beneath the surface of the decision in *Katz*: "whether, if the particular form of surveillance practiced by the police is permitted to go unregulated by constitutional restraints, the amount of privacy and freedom remaining to citizens would be diminished to a compass inconsistent with the aims of a free and open society."[216] Substitute "our traditions" for "a free and open society," and Amsterdam's test becomes Scalia's. Of course this is hardly a trivial substitution. Amsterdam's view of search-and-seizure law untethered it almost entirely from history—the Court's own history as well as the history of the Fourth Amendment.[217] Fidelity to tradition imposes real constraints, albeit constraints that typically leave some wiggle room.[218] Still, the similarity between Amsterdam's test and the reconfigured common-law inquiry in *Kyllo* is illuminating. It throws into sharp relief the degree to which *Kyllo* seems to abandon the effort to render Fourth Amendment law stable, determinate and independent of judicial predilection by anchoring it in eighteenth-century common law.

Precisely for that reason, it is hard to know how much to read into this aspect of *Kyllo*. When push comes to shove, the Court may well balk at determining the scope of the Fourth Amendment by reference to something as open-ended as "tradition." Perhaps deep down the Court even now remains as committed as it was in *Houghton* to the new Fourth Amendment originalism. Or perhaps Justice Scalia remains committed, but he had to tailor his opinion in *Kyllo* to reflect qualms developed by other members of the Court.[219] Or maybe even Justice

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[216] Amsterdam, *supra* note 13, at 403; *accord, e.g.*, 1 WAYNE R. LAFAVE, SEARCH AND SEIZURE § 2.7(a), at 621 (3d ed. 1996).

[217] *See* Carol S. Steiker, *Of Cities, Rainforests, and Frogs: A Response to Allen and Rosenberg*, 72 ST. JOHN'S L. REV. 1203, 1204 (1998).

[218] *See* Sklansky, *supra* note 12, at 1808-09.

[219] *Cf.* Seamon, *supra* note 184, at 1025 (suggesting that Justice Scalia's opinion in *Kyllo* tempered his own views because the Court as a whole does not fully support them).

Scalia has retreated somewhat from the views reflected in *Houghton*. For anyone who has found the use of common law in the Court's recent Fourth Amendment decisions wooden and bordering on the pedantic, *Kyllo* points in a hopeful direction. For reasons to be discussed below, the direction *Kyllo* provides regarding the proper role of tradition in interpreting the Fourth Amendment also could help the Court make better sense of *Katz*. But whether the Court actually will follow that direction remains unclear.

B. Katz

Despite its striking allegiance to certain aspects of *Katz*, Justice Scalia's opinion for the Court in *Kyllo* raises two serious questions about the earlier decision. First, is it faithful to *Katz*, and is it wise to rest Fourth Amendment analysis so heavily on the *location* of surveillance—in particular, on the fact that the subject of surveillance is at home? Second, how should the Court answer the question Justice Scalia deliberately left open in *Kyllo*: whether the use of new technology to spy on people at home can violate a "reasonable expectation of privacy" even when the technology is "in general public use"?[220] I consider each of these questions in turn.

1. "People, Not Places" and the "Sanctity of the Home"

Ever since *Katz*, the Supreme Court has repeatedly reaffirmed two basic propositions about the Fourth Amendment. The first is that the protection the Amendment provides is independent of location.[221] The second is that the Amendment provides special protection to the home.[222] Each of these ideas has obvious appeal. But they are mutually inconsistent.

Kyllo resolves them the way Justice Harlan resolved them in his concurring opinion in *Katz*: by opting for the second proposition rather than the first. For Justice Harlan, the

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[220] *Kyllo*, 533 U.S. at 34.
[221] *See supra* note 66 and accompanying text.
[222] *See supra* note 67 and accompanying text.

Fourth Amendment protected "people, not places" only in the most banal sense: places would not be heard to complain about Fourth Amendment violations, only people. But whether a person's complaint had merit would generally depend heavily, Justice Harlan thought, on where the search or seizure occurred. Thus the telephone surveillance in *Katz* violated the Fourth Amendment only because in relevant respects a telephone booth was "like a home."[223] Similarly, the majority opinion in *Kyllo* repeatedly emphasizes that the thermal imager was aimed at a residence. Indeed, Justice Scalia's endorsement of the "reasonable expectation of privacy" test is limited to "the case of the search of the interior of the home."[224] So, too, Justice Scalia reaffirms that warrantless searches of *homes* generally are "unreasonable" and hence unconstitutional, but he goes out of his way to cast doubt on the broader proposition that *all* warrantless searches are "presumptively unconstitutional."[225]

There is a good deal to be said for giving homes special status under the Fourth Amendment. Homes *are* different than other places. It is not just the long legal tradition of singling out homes for particular protection—a tradition reflected in the wording of the Fourth Amendment itself, in the earlier history of search and seizure law, and in ancillary doctrines such as the crime of burglary. Wholly aside from that tradition, there does seem something particularly objectionable about being harassed at home—even without a trespass. That is why telephone solicitors are so deeply resented. And, similarly, there is something particularly objectionable about being spied on at home, even without a trespass. Orwell's *1984* would have much less frightening if Big Brother's surveillance apparatus did not reach into the home. The ability to enjoy solitude in one's home seems both a aspect of human dignity and a prerequisite of a free society. As the Court stressed in a precursor to *Katz*, a "sane, decent, civilized society must provide some such oasis, some shelter from public scrutiny, some insulated enclosure, some enclave, some inviolate place."[226]

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[223] *Katz*, 389 U.S. at 360-62 (Harlan, J., concurring).

[224] *Kyllo*, 533 U.S. at 34.

[225] *Id.* at 32. As Professor Seamon points out, the narrow reaffirmation of the warrant requirement in *Kyllo* is consistent with the Court's tacit retreat over the past decade from the notion that all searches presumptively require warrants—a retreat that may have been prompted, in part, by Justice Scalia's criticism of the warrant requirement in his concurring opinion in *United States v. Acevedo*, 500 U.S. 565, 583 (1991). *See* Seamon, *supra* note 184, at 1027-28.

Of course there are costs to treating the home differently than other places. If privacy receives more protection in the home than elsewhere, it necessarily follows that leaving one's home means losing some privacy—that the price of full privacy is not going out. That price might impair rather than foster a free and vibrant society. Moreover, the price is not visited equally on everyone, because not all homes are equivalent. As Professor William Stuntz has recently reminded us, rich people have bigger and more comfortable homes than poor people; it is therefore much easier for rich people than for poor people to stay home when engaged in activities they wish to keep private. Granting homes more privacy than other places therefore tilts Fourth Amendment protection in favor of the rich and against the poor, who are forced to conduct much of their lives outside of their residences.[227]

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[226] Silverman v. United States, 365 U.S. 505, 511 n.4 (1961) (quoting United States v. On Lee, 193 F.2d 306, 315-16 (2d Cir. 1951) (Frank, J., dissenting), *aff'd*, 343 U.S. 747 (1952)); *see also, e.g.*, James J. Tomkovicz, *Beyond Secrecy for Secrecy's Sake: Toward an Expanded Vision of the Fourth Amendment Privacy Province*, 36 HASTINGS L.J. 645, 673-75 (1985).

Silverman found the Fourth Amendment violated when federal agents attached a microphone to the defendants' heating duct and thereby "usurp[ed] part of [their] home or office." *Silverman*, 365 U.S. at 511. Justice Stewart's majority opinion stressed that the case required no reconsideration of *Olmstead*, because "the eavesdropping was accomplished by means of an unauthorized physical penetration into the premises occupied by the petitioners," regardless whether there was "a technical trespass under the local property law relating to party walls." *Id.* at 509, 511. Later, though, writing for the Court in *Katz*, Justice Stewart pointed to *Silverman* as one of the decisions that had "so eroded" the "underpinnings of *Olmstead*" that "the 'trespass' doctrine there enunciated can no longer be considered as controlling." *Katz*, 389 U.S. at 353.

Notwithstanding the appreciation the Court showed in *Silverman* for Judge Frank's dissent in *On Lee*, the Justices have never wavered from the ruling they affirmed in that case: that the Fourth Amendment is not implicated by electronic monitoring of an undercover meeting with a criminal suspect, even in the suspect's home or office. *See* United States v. White, 401 U.S. 745, 750-54 (1971).

[227] *See* William J. Stuntz, *The Distribution of Fourth Amendment Privacy*, 67 GEO. WASH. L. REV. 1265, 1270 (1999); *see also, e.g.,* Amsterdam, *supra* note 13,

Many advocates of greater privacy against the police therefore have little enthusiasm for the notion that the home is a castle. They worry this means "the streets . . . belong to the police."[228] But there is little reason to believe that erasing the boundary between the home and the street would give streets as much privacy as homes, instead of giving homes as little privacy as streets. The Supreme Court has rarely taken Fourth Amendment protections for the home and extended them to other locales: *Katz* is highly unusual in this respect. More commonly, the Court's failure to distinguish between the home and areas outside the home has resulted in diminished privacy protection for the home. When the Court approved "protective sweeps" of homes, for example, it analogized to the similar practice it had earlier authorized for automobiles,[229] and discounted references in the dissent to "the special sanctity of a private residence."[230] So, too, when the Court first approved warrantless searches of the homes of probationers, it drew on decisions permitting warrantless searches based on "special needs" in schools, prisons, and government offices[231]—and again left it to the dissent to stress that "[t]he search in this case was conducted in petitioner's *home*, the place that traditionally has been regarded as the center of a person's private life, the bastion in which one has a legitimate expectation of privacy protected by the Fourth Amendment."[232] And similar-

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at 404.

[228] Cole, *supra* note 178. Professor Seamon hints at a similar concern when he warns that the Supreme Court's decision in *Kyllo* may "signal a balkanization of the Fourth Amendment." *See* Seamon, *supra* note 184, at 1029.

[229] *See* Maryland v. Buie, 494 U.S. 325, 332 (1990).

[230] *Id.* at 342-43 (Brennan, J., dissenting).

[231] Griffin v. Wisconsin, 483 U.S. 868, 873-74 (1987).

[232] *Griffin*, 483 U.S. at 883 (Blackmun, J., dissenting). More recently, in *United States v. Knights*, 534 U.S. 112 (2001), the Court approved warrantless probation searches not based on a theory of "special needs" but rather by applying the general "balancing" approach of *Terry v. Ohio*, 392 U.S. 1 (1968)—a test initially crafted to help regulate "the myriad daily situations in which policemen and citizens confront each other on the street." *Id.* at 12; *see supra* notes 37-46 and accompanying text. In applying *Terry* to searches of automobiles, the Court has stressed that the balancing must take into account "the totality of the circumstances," *Ohio v. Robinette*, 519 U.S. 33, 39 (1996), and this principle, too, was applied to the residential search at issue in *Knights*. *See Knights*, 534 U.S. at

ly, when the Court held that a short-term guest in another's home may lack any reasonable expectation of privacy,[233] it was extending into the home its earlier ruling that a passenger in someone else's automobile cannot challenge a search of the vehicle.[234] In practice, there is something of an inverse relation between the scope of the Fourth Amendment and the protection that it offers.[235] To say that it applies everywhere equally is to say that it protects nowhere very strictly.[236]

The Court therefore had good reason in *Kyllo* to emphasize "the Fourth Amendment sanctity of the home,"[237] just as Justice Harlan had good reason in *Katz* to insist that the protection provided by the Fourth Amendment "generally . . . requires reference to a 'place.'"[238] The problem remains how to reconcile this focus on location with the result in *Katz*. Justice Harlan's answer—that an enclosed telephone booth can be analogized to a house—was unpersuasive at the time and, with cellular telephones and unenclosed pay telephones rapidly replacing telephone booths, is even less persuasive now.[239] Surely what mattered was not that Katz was in a telephone

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118. Once again, Fourth Amendment rules developed for the street were applied to the home.

[233] *See* Minnesota v. Carter, 525 U.S. 83 (1998).

[234] Rakas v. Illinois, 439 U.S. 128 (1978); *see also Carter*, 525 U.S. at 108 (Ginsburg, J., dissenting) (noting that *Rakas* "tolerates" the risk that police officers will be tempted to search automobiles illegally in the hope of finding evidence admissible against suspects who cannot challenge the search, but seeing "no impelling reason to extend this risk into the home").

[235] *See, e.g.*, Amsterdam, *supra* note 13, at 387-88, 405.

[236] This is merely one instance of the familiar, more general phenomenon that broadening the scope of a legal protection puts downward pressure on its rigor. Another example from criminal procedure: The *Miranda* rules were initially crafted for stationhouse interrogations, *see* Miranda v. Arizona, 384 U.S. 436, 444 (1966), and only afterward extended, over sharp dissents, to "custodial" questioning in other, less coercive settings, *see* Orozco v. Texas, 394 U.S. 324 (1969); Mathis v. United States, 391 U.S. 1 (1968). It is unlikely to be a coincidence that most of the subsequent decisions weakening *Miranda*—by carving out exceptions to its requirements, limiting the remedies for its violation, and casting doubt on its constitutional status—involved questioning in the field rather than in interrogation rooms. *See, e.g.,* Oregon v. Elstad, 470 U.S. 298 (1985); New York v. Quarles, 467 U.S. 649 (1984); Harris v. New York, 401 U.S. 222 (1971).

[237] *Kyllo*, 533 U.S. at 37.

[238] *Katz*, 389 U.S. at 361 (Harlan, J., concurring).

[239] *See supra* notes 63-65 and accompanying text.

booth, but that he was making a telephone call.

The key to reconciling *Katz* with the longstanding centrality of the home in Fourth Amendment law is precisely this intuition that the privacy protected in *Katz* attached neither to a *person* (Charles Katz), nor to a *place* (the telephone booth), but to a *communication* (the telephone conversation). Katz had a reasonable expectation of privacy neither because of who he was nor because of where he was, but because of what he was doing. Justice Harlan may well have been right that the trigger for Fourth Amendment protection is *generally* a location—but not always, and not in *Katz*.[240] The core meaning of *Katz*, as Justice White once wrote for the Court, is "that the Fourth Amendment protects a person's private conversations as well as his private premises."[241]

The relevant analogy in *Katz* therefore was not between telephone booths and homes but between telephone calls and letters—a more traditional form of communication at a distance, for which Fourth Amendment protection had long been settled. The text of the Fourth Amendment specifically guarantees the security of "papers," along with "persons, houses, . . . and effects," and there is a celebrated tradition, on both sides of the Atlantic, of treating papers as a person's "dearest property."[242] Drawing on this tradition, the Supreme Court held as early as 1878 that the Fourth Amendment barred warrantless searches of mail "intended to be kept free from inspection, such as letters, and sealed packages subject to letter postage."[243] The government was free to observe the "outward form and weight" of such items, but it could open and examine them only after satisfying the same requirements imposed "when papers are subjected to search in one's own household."[244] The Court later rejected the notion that papers have "special sanctity" under the Fourth Amendment,[245] and of course *Katz* repudiated the broader notion that the Fourth Amendment serves chiefly to protect certain property rights. But in the wake of *Katz* the Court reaffirmed that the Fourth Amendment protects private correspondence from warrantless inspection.[246] In doing so the Court stressed the significance of mail not as a form of property, not as part of a person's "papers," but rather as a medium of communication:

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[240] Similarly, the privacy the Court has protected as a matter of substantive due process can usefully be understood as sometimes attaching "to certain *places* without regard for the particular activities in which the individuals who occupy them are engaged," and other times attaching "to certain *decisions* that are properly for the individual to make." Bowers v. Hardwick, 478 U.S. 186, 203-04 (1986) (Blackmun, J., dissenting).

[241] Alderman v. United States, 394 U.S. 165, 178 (1969); *cf., e.g.,* Peter Arenella, *Rethinking the Functions of Criminal Procedure: The Warren and Burger Courts' Competing Ideologies*, 72 GEO. L.J. 185, 201 (1983) (suggesting that the Fourth Amendment protects distinct interests in "informational privacy, privacy of place, and physical privacy") (footnotes omitted).

[242] Boyd v. United States, 116 U.S. 616, 627-28 (1886) (quoting Entick v. Carrington, 95 Eng. Rep. 807 (C.P. 1765)); *accord,* United States v. Lefkowitz, 285 U.S. 452, 465 (1932); *see* Morgan Cloud, *The Fourth Amendment During the* Lochner *Era: Privacy, Property and Liberty in Constitutional Theory*, 48 STAN. L. REV. 555, 589-96 (1996); Eric Schnapper, *Unreasonable Searches and Seizures of Papers*, 71 VA. L. REV. 869 (1985).

> The course of events since 1878 has underlined the relevance and importance of the Post Office to our constitutional rights. Mr. Justice Holmes in *United States ex rel. Milwaukee Social Democratic Pub. Co. v. Burleson*, 255 U.S. 407, 437 (dissenting opinion), said that "the use of the mails is almost as much a part of free speech as the right to use our tongues." We have emphasized over and over again that while Congress may classify the mail and fix the charges for its carriage, it may not set up regimes of censorship over it, *Hannegan v. Esquire, Inc.,* 327 U.S. 146, nor encumber its flow by setting "administrative officials astride the flow of mail to inspect it, appraise it, write the addressee about it, and await a response before dispatching the mail" to him. *Lamont v. Postmaster General*, 381 U.S. 301, 306. [247]

Of course the Fourth Amendment does not protect the privacy of *all* communications. A police officer needs no warrant, nor any other constitutional prerequisite, to read an editorial published in a newspaper or to listen to a public lecture. Perhaps the Fourth Amendment likewise should not apply to the inspection of a postcard, which carries its message as part of its "outward form,"[248] or to words shouted across a crowded subway car, or—as lower courts have held—to telephone conversations capable of being overheard in public without the use of any sensory enhancement.[249] Saying the Fourth Amendment protects some communications does not tell us *which* communications, anymore than saying it protects some places tells us which places. Some additional analysis is needed to identify the communications people can reasonably expect the government to treat as private, just as some additional analysis is needed to identify the *places* where such an expectation of privacy generally will be reasonable.

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[243] *Ex parte* Jackson, 96 U.S. 727, 733 (1878).

[244] *Id.*

[245] Gouled v. United States, 255 U.S. 298, 309 (1921); *see* Cloud, *supra* note 242, at 592-93.

[246] United States v. Van Leeuwen, 397 U.S. 249 (1970).

[247] *Van Leeuwen*, 397 U.S. at 251-52 (footnote omitted).

As we have seen, *Kyllo* answers the latter question in part by appealing to tradition. Scalia's majority opinion in *Kyllo* appeals both to the narrow tradition of the home as a citadel of privacy and, implicitly, to the wider realm of privacy valued by the Framers of the Fourth Amendment.[250] The Court made similar appeals to narrow and broad traditions in reaffirming the privacy of posted letters in the wake of *Katz*: to the narrow tradition of the protecting first-class mail under the Fourth Amendment, and to the broad tradition of unfettered speech. And appeals of the same kind offer the strongest justification for the result in *Katz* itself. The narrow point is that telephone calls are in many respects the modern equivalent of eighteenth-century letters[251]—something the Court itself hinted at in

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[248] *See* Note, *Keeping Secrets in Cyberspace: Establishing Fourth Amendment Protection for Internet Communication*, 110 HARV. L. REV. 1591, 1597 (1997). Lower courts have found the Fourth Amendment inapplicable when law enforcement agents systematically record the information appearing on the outside of mail sent to a particular suspect, a tactic known as a "mail cover." *See, e.g.,* 1 LAFAVE, *supra* note 183, § 2.7(a), at 618-22; Note, *supra*, at 1597 n.62.

[249] *See, e.g.,* United States v. Muckenthaler, 584 F.2d 240 (8th Cir. 1978); United States v. McLeod, 493 F.2d 1186 (7th Cir. 1974); State v. Constantino, 603 A.2d 173 (N.J. Super. 1991); People v. Fisher, 420 N.W.2d 858 (Mich. App. 1988); State v. Kuznitz, 250 A.2d 802 (N.J. Super. 1969).

[250] *See supra* notes 213-18 and accompanying text.

[251] On the importance of this kind of "translation" in constitutional interpretation, see Lawrence Lessig, *Fidelity in Translation*, 71 TEX. L. REV. 1165 (1993).

Katz by stressing "the vital role that the public telephone has come to play in private communication."[252] The broader point is that "the insidious, far-reaching and indiscriminate nature of electronic surveillance—and, more important, its capacity to choke off free human discourse that is the hallmark of an open society—makes it almost, although not quite, as destructive of liberty, as 'the kicked-in door.'"[253]

The newly pervasive metaphor of cyberspace may make all of this easier to see now than when *Katz* was decided.[254] Within the past decade, we have grown used to thinking of internet users as occupying not only physical locations—chairs in front of computer screens—but also metaphoric, or "virtual" locations—chat rooms, web sites, etc. It no longer seems odd to speak of "breaking into" a remote database or "lurking in" a discussion group.[255] If the government wanted to monitor surreptitiously the keyboard strokes of a twenty-first-century Katz connected to the internet through a pay telephone, it might seem natural to ask, in assessing the suspect's claim of privacy, not only where he was sitting but where he was "visiting." And in hindsight it makes sense to ask this about the *Katz* case as

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The principal target of the influential dissent filed by Justice Brandeis in *Olmstead v. United States*, 277 U.S. 438 (1928), was precisely the Court's "unduly literal construction" of the Fourth Amendment, limiting its reach to searches and seizures of "persons, houses, papers, and effects." *Olmstead*, 277 U.S. at 476; *see, e.g.,* Clancy, *supra* note 67, at 317-20, 325-26.

[252] *Katz*, 389 U.S. at 352.

[253] Amsterdam, *supra* note 13, at 388 (endnotes omitted).

[254] *See, e.g.,* Jerry Kang, *Information Privacy in Cyberspace Transactions*, 50 STAN. L. REV. 1193 (1998); Lawrence Lessig, *Reading the Constitution in Cyberspace*, 45 EMORY L.J. 869 (1996); Laurence H. Tribe, The Constitution in Cyberspace: Law and Liberty Beyond the Electronic Frontier, Mar. 26, 1991 (unpublished manuscript on file with author and available at http://www.epic.org/free_speech/tribe.html (last visited Aug. 28, 2002)). *But cf.* Note, *supra* note 257, at 1599 (cautioning that "[b]ecause the architecture of cyberspace is dissimilar to most conventional notions of place, analogizing cyberspace to a place for purposes of the Fourth Amendment has serious limitations").

[255] *Cf.* Christopher Slobogin & Joseph E. Schumacher, *Reasonable Expectations of Privacy and Autonomy in Fourth Amendment Cases: An Empirical Look at "Understandings Recognized and Permitted by Society,"* 42 DUKE L.J. 727, 739 (1993) (reporting that survey participants found "[t]apping into a corporation's computer" almost as "intrusive" as searching a college dormitory room).

well. Cyberspace, after all, has been memorably described as "that place you are in when you are talking on the telephone."[256] And that, not the telephone booth, was the "place" that warranted privacy protection in *Katz*.

The advent of the internet makes this not only easier to see but also more important to recognize. Many of the predictions about the coming cyber-society are clearly overblown. But many of us *are* conducting more and more of our lives online, and the trend seems likely to continue, albeit less rapidly then is sometimes claimed.[257] Telephone calls no longer are the most obvious modern analog to eighteenth-century letters; e-mail is. Likewise, we now use the worldwide web for much of what used to entail an afternoon at the library or a trip to a department store. And, perhaps more important, what we do online can be monitored far more completely and systematically than most of what we do away from our computers.[258] So the widespread use of the internet as a medium of social, political, and commercial interaction poses very real challenges for search-and-seizure law. Given "the vital role" this new medium "has come to play in private communication,"[259] leaving it unprotected by the Fourth Amendment—even more, perhaps, than leaving wiretapping constitutionally unregulated—seems "inconsistent with the aims of a free and open society."[260] But the structure of the internet—particularly the manner in which internet communications typically leave trails in many different computers, one or more of which the government will often have consent to access[261]—means that much if not most government snooping in cyberspace may not constitute a "search" or "seizure" within the meaning of the Fourth Amendment if "reasonable expectations of privacy" attach only to certain physical places like the home or, even worse, protect only against physical trespasses.

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[256] Philip Elmer-DeWitt, *Welcome to Cyberspace: What Is It? Where Is It? And How Do We Get There?*, TIME, Mar. 22, 1995, at 4, 8 (quoting John Perry Barlow); *see also, e.g.*, Tribe, *supra* note 254; Michael Adler, Note, *Cyberspace, General Searches, and Digital Contraband: The Fourth Amendment and the Net-Wide Search*, 105 YALE L.J. 1093, 1102 (1996) (calling *Olmstead v. United States* "arguably . . . the Court's first foray into the jurisprudence of cyberspace").

[257] *See, e.g.*, Adler, *supra* note 256, at 1096; Note, *supra* note 248, at 1607-08.

[258] *See, e.g.*, Kang, *supra* note 254, at 1224-29; Jessica Litman, *Information Privacy/Information Property*, 52 STAN. L. REV. 1283, 1283-84 (2000); Adler, *supra* note 256, at 1095-96.

[259] *Katz*, 389 U.S. at 352.

[260] Amsterdam, *supra* note 13, at 403; *see, e.g.*, Lessig, *supra* note 254; Tribe, *supra* note 254.

Many people, of course, use the internet from their own homes. Many others do so from their office, and while offices do not "share the Fourth Amendment sanctity of the home,"[262] the Supreme Court has consistently treated them as places where people typically have reasonable expectations of privacy.[263] But a significant and steadily increasing portion of internet use takes place through mobile devices.

More important, *Kyllo* leaves unclear whether even people who use the internet at home can count on the Fourth Amendment protecting their privacy online. The reason is the Court's equivocation in *Kyllo* about the significance of possible *private* surveillance. When announcing that the Fourth Amendment protects against any use of "sense-enhancing technology" to gather information that otherwise would require physical entry into a home, the Court was quick to add a caveat: "at least where (as here) the technology in question is not in general public use."[264] The Court repeated the caveat toward the end of its opinion: obtaining information about the inside of a home that previously would have required physical intrusion is a "search" within the meaning of the Fourth Amendment *"[w]here, as here, the Government uses a device that is not in general public use."*[265]

A signal and well-known feature of the internet is its vulnerability to "hacking": private, unauthorized monitoring and in some cases manipulation. Of course internet service providers have developed ever more sophisticated protections for the privacy of their users, but each new level of security seems inevitably to be defeated by a loose, worldwide network of computer-savvy adolescents. Hacking seems here to stay.[266] *Kyllo* leaves unclear how "general" public use of a monitoring technique must be before its use by the government will escape Fourth Amendment regulation, or even whether "general public use" on any scale will have this effect.[267] It therefore leaves open the possibility that continued, widespread hacking—or simply widespread use of programs that can be employed for hacking—will render even internet use from the home or office unprotected by the Fourth Amendment, as long as the government is content to use the same sorts of tools that hackers use.[268]

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[261] *See, e.g.,* Kang, *supra* note 254, at 1201 n.20, 1224-29.

[262] *Kyllo*, 533 U.S. at 37.

[263] *See, e.g.,* O'Connor v. Ortega, 480 U.S. 709 (1987); *Katz*, 389 U.S. at 351-52, 359.

[264] *Kyllo*, 533 U.S. at 34.

[265] *Id.* at 40 (emphasis added).

The caveat in *Kyllo* about "general public use" is plainly important for other reasons, as well. It could eventually strip Fourth Amendment protection from all sorts of things and activities in the home, not just online activity. Doubtless this is why the Court equivocated, saying its new rule applies "*at least* where . . . the technology is not in general public use."[269] But sooner or later the Court will need to decide whether "general public use" does in fact render a device immune from Fourth Amendment regulation. It therefore would be wise for the rest of us to start considering now what answer the Court should give.

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[266] *See, e.g.,* Note, *supra* note 248, at 1595 (noting that all available methods of "securing privacy in cyberspace" are "limited by the fact that the system administrator who runs the typical Internet user's local area network is technologically capable of monitoring all information transmitted into or out of the network"). Indeed, even computers unconnected to the internet are vulnerable to hacking when they are parts of wireless local networks. The *New York Times* recently reported the emergence of a subculture of hackers "who enter poorly safeguarded wireless networks while driving or walking around with laptops." John Schwartz, *Nanny-Cam May Leave a Home Exposed*, N.Y. TIMES, Apr. 14, 2002, §1, at 1, 27.

[267] Justice Stevens noted this ambiguity in his dissent, and called "somewhat doubtful" the "assumption that the thermal imager in this case does not satisfy [the] criterion" of "general public use." *Kyllo*, 533 U.S. at 47 (Stevens, J., dissenting); *see infra* note 281 and accompanying text.

[268] This prospect is particularly troubling given the proliferating use of the internet for private, visual monitoring of homes by their owners or occupants. *See, e.g.*, Schwartz, *supra* note 266.

[269] *Kyllo*, 533 U.S. at 34.

2. "Reasonable Expectations of Privacy" and Technology in "General Public Use"

It is easy to understand why the Court left the question of "general public use" for another day. On the one hand, it seems pointless to bar the government from seeing something everyone can see. How can someone have a "reasonable expectation of privacy" in information shared with the public? That intuition explains why the Court in *Katz* said that "[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection."[270] The same intuition has led the Court to rule, for example, that a homeowner has no expectation of privacy in parts of his backyard that can be observed overhead from "public navigable airspace."[271] And the same intuition led the four dissenters in *Kyllo* to complain that "public officials should not have to avert their senses or their equipment from detecting emissions in the public domain."[272]

On the other hand, declaring any device in "general public use" unregulated by the Fourth Amendment would mean that, as technology advances and is disseminated, the zone of privacy preserved by the Constitution will steadily contract. The task the majority set for itself in *Kyllo* was precisely to identify limits on the "power of technology to shrink the realm of guaranteed privacy," in order to "assure[] preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted."[273] But as Justice Stevens pointed out in dissent, "it seems likely that the threat to privacy will grow, rather than recede, as the use of intrusive equipment becomes more readily available."[274] So a "general public use" exception could allow technological development to devour much of the Fourth Amendment.

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[270] *Katz*, 389 U.S. at 351.

[271] California v. Ciraolo, 476 U.S. 207, 213-14 (1986).

[272] *Kyllo*, 533 U.S. at 45 (Stevens, J., dissenting).

[273] *Id.* at 34.

[274] *Id.* at 47 (Stevens, J., dissenting).

A case in point: telephones. When cordless telephones proliferated in the 1980s and early 1990s, lower courts overwhelmingly concluded that, notwithstanding *Katz*, conversations conducted on the new devices were unshielded by the Fourth Amendment. Courts reasoned that such conversations could be, and sometimes were, intercepted by anyone with an AM/FM radio—or, when cordless telephones became more sophisticated, with radio scanners "commercially available at most radio and electronics stores."[275] The problem, as one court recognized, is that we may be "moving inexorably toward a completely cordless telephone system," so "the decision as to whether cordless telephone conversation is protected by the Fourth Amendment may ultimately determine whether *any* telephone conversation is protected by the Fourth Amendment."[276] In 1994, Congress solved this problem for the time being by statutorily prohibiting warrantless interception of conversations carried out on cordless telephones.[277] Even without this statute, it is possible, although not certain, that the technological protections of privacy built into cordless telephones—e.g., scrambling circuitry—will improve faster than the tools widely available for circumventing them.[278] Still, it remains "sobering" that *constitutional* protections for the confidentiality of telephone conversation might be extinguished by a widespread risk of private surveillance made possible by new technology.[279] Another technology—air travel—has already removed such protection for the privacy of most backyards, and the global traffic in software for hacking might leave government monitoring of internet communications unregulated by the Fourth Amendment.[280]

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[275] United States v. Smith, 978 F.2d 171, 173 n.1 (5th Cir. 1992); *see also, e.g.,*United States v. Carr, 805 F. Supp. 1266 (E.D.N.C. 1992); Chandler v. State, 680 So.2d 1018 (Ala. Crim. App. 1996); People v. Chavez, 52 Cal. Ct. Rptr. 2d 347 (Cal. App. 1996). Early-generation radio telephones for use in automobiles were deemed unprotected on similar grounds. *See, e.g.,* United States v. Hall, 488 F.2d 193 (9th Cir. 1973); United States v. Hoffa, 436 F.2d 1243 (7th Cir. 1970). Similar scanners now can and are used to intercept radio signals sent by "nanny-cams" to receivers attached to personal computers. *See* Schwartz, *supra* note 266.

[276] *Smith*, 978 F.2d at 177. The unusually thoughtful opinion in *Smith* suggested in dicta that "as technological advances make cordless communications more private at some point such communication will be entitled to Fourth Amendment protection," but it rejected the Fourth Amendment claim in the case at bar because the defendant "introduced absolutely no evidence—such as the phone's frequency or range—that would tend to show that his subjective expectation of privacy was reasonable." *Id.* at 180-81.

[277] *See* 18 U.S.C. § 2510(1), (12) (West 2000); *see, e.g.,* Price v. Turner, 260 F.3d 1144, 1147-48 (9th Cir. 2001).

[278] *See, e.g.*, *Smith*, 978 F.2d at 179.

Of course some of this problem could be avoided by a sufficiently narrow definition of "general public use." Perhaps the Court had in mind not devices like radio scanners, which although "commercially available" are still something of a specialty item, but rather things like binoculars and telescopes. But a concept like "general public use" is difficult to cabin; that is why the dissenters in *Kyllo* could plausibly suggest that the thermal imager used in the case before the Court might satisfy the majority's criterion.[281] More important, even devices as mundane as binoculars and telescopes, if left constitutionally unregulated, could do significant damage to the "degree of privacy against the government that existed when the Fourth Amendment was adopted."[282] That is why several lower courts

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[279] *Id.* at 177. The Fifth Circuit noted in *Smith* that "[t]he equipment needed to tap a *regular* telephone line can be purchased for less than $25 at Radio Shack." *Id.* at 179 n.10 (emphasis added). Surely, the court reasoned, this does not mean that without statutory prohibitions on wiretapping the Fourth Amendment would not protect land line telephones. *Id.* One would hope not. But the Supreme Court has left the matter in doubt, in part by equivocating as it did in *Kyllo* about the significance of "general public use" of devices that can be used for surveillance.

[280] The majority in *Kyllo* seemed aware of the problem, and stressed that the "general public use" doctrine was not of its own making, but rather followed from the Court's previous treatment of observations from airplanes. *See Kyllo*, 533 U.S. at 39 n.6. *Kyllo* was not the proper case for reconsidering the doctrine, the majority suggested, because "we can quite confidently say that thermal imaging is not 'routine.'" *Id.*

[281] *See id.* at 47 (Stevens, J., dissenting).

> The record describes a device that numbers close to a thousand manufactured units; that has a predecessor numbering in the neighborhood of 4,000 to 5,000 units; that competes with a similar product numbering from 5,000 to 6,000 units; and that is 'readily available to the public' for commercial, personal, or law enforcement purposes, and is just an 800-number away from being rented from 'half a dozen national companies' by anyone who wants one.

Id. at 2050 n.5.

[282] *Kyllo*, 533 U.S. at 34.

(although certainly not all) have found the Fourth Amendment triggered by the use of binoculars or telescopes to spy on suspects in their own homes.[283] As one court explained, leaving this kind of intrusion into the home constitutionally unrestricted "would violate the basic foundations of privacy, security and decency which distinguish free societies from controlled societies."[284] That intuition seems sound—as does the similar notion that the Fourth Amendment should have something to say about when the police can use binoculars or telescopes to read the lips of someone speaking on a public telephone, or to intercept a text message displayed on a wireless communication device. None of these intuitions are easy to defend, though, if "general public use" of binoculars and telescopes means their employment by the government can violate no reasonable expectation of privacy. And if *any* means of sensory enhancement are "general public use," binoculars and telescopes are.[285]

There are two relatively straightforward ways out of this dilemma, but both would require the Supreme Court to rethink certain aspects of Fourth Amendment law.[286] The first and simplest way out would be to recognize that government surveillance differs from private snooping, and therefore that the latter, no matter how common, should not eliminate protection against the former. This was the approach one lower court took when it found that government agents intruded on a reasonable expectation of privacy by using a telescope to peer into a suspect's apartment.[287] The court expressly rejected the government's claim that any expectation of privacy was rendered unreasonable by the widespread use of telescopes by private citizens to spy on people living in high-rises.[288] Private snooping, the court reasoned, had "no bearing" on the legality of government surveillance, because the government spies "for different purposes than private citizens," and sometimes "with more zeal."[289] Accordingly, a person's "lack of concern about intrusions from private sources has little to do with an expectation of freedom from systematic governmental surveillance," and "[t]he fact that Peeping Toms abound does not license the government to follow suit."[290]

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[283] *See, e.g.,* United States v. Taborda, 635 F.2d 131 (2d Cir. 1980); United States v. Kim, 415 F. Supp. 1252 (D. Haw. 1976); Wheeler v. State, 659 S.W.2d 381 (Tex. Crim. App. 1982). *But see, e.g.,* State v. Ludvik, 698 P.2d 1064 (Wash. Ct. App. 1985); People v. Clark, 350 N.W.2d 754 (Mich. App. 1983); Cooper v. Superior Court, 173 Cal Rptr. 520 (Cal. Ct. App. 1981). For a helpful overview of the cases, see Kate Donovan Reynaga, Annotation, *Observation Through Binoculars as Constituting Unreasonable Search*, 59 A.L.R. 5th 615 (1998).

[284] *Kim*, 415 F. Supp. at 1257; *accord*, Lawrence Kaiser Marks, Note, *Telescopes, Binoculars, and the Fourth Amendment*, 67 CORNELL L. REV. 379, 394 (1982).

[285] *But see* Marks, *supra* note 284, at 393 (reasoning that "[b]ecause the use of telescopes and binoculars is not widespread in our society, citizens maintain a reasonable expectation of privacy for activity and objects not readily observable by the naked eye").

[286] Under each of these proposals, "reasonable expectations of privacy" would remain the chief objects of Fourth Amendment protection. Plausible arguments can be made that search-and-seizure law should instead focus first and foremost on protecting something other than privacy—e.g., "security," *see* Clancy, *supra* note 67, at 344-69, or "trust," *see* Scott E. Sundby, *"Everyman"'s Fourth Amendment: Privacy or Mutual Trust Between Government and Citizen*, 94 COLUM. L. REV. 1751 (1994). But any sensible approach to the Fourth Amendment will likely incorporate concepts of privacy at some level. Professor Clancy, for example, finds the essence of the Fourth Amendment in "the ability and the right to exclude agents of the government," but he stresses that "[t]he ability to exclude must

There obviously is a good deal to be said for this line of thinking.[291] But the Court has consistently rejected it. *Katz* it-

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extend to all invasions, tangible and intangible, and must protect both tangible and intangible aspects of the amendment's protected objects." Clancy, *supra* note 67, at 367. It is difficult to see how "intangible" invasions can be defined without drawing on some notion of privacy. Professor Sundby urges the Court to pay attention in Fourth Amendment cases to "how government intrusions affect the underlying need for government-citizen trust." Sundby, *supra*, at 1755. Again, though, some concept of privacy seems necessary in order to identify government "intrusions" in the first place. Sundby in fact proposes that considerations of trust supplement, not replace, considerations of privacy in Fourth Amendment law. *See, e.g., id.* at 1754-55.

[287] *Kim*, 415 F. Supp. at 1256.

[288] *Id.*

[289] *Id.*

[290] *Id.*

[291] *Cf., e.g.,* Litman, *supra* note 258, at 1309 ("[I]nformation . . . is disclosed [within many commercial relationships] subject to implicit constraints of confidentiality. . . . People give merchants sensitive information . . . in order to consummate commercial transactions, believing the information will be used only for that purpose and then discarded."); Sundby, *supra* note 286, at 1793 ("The early morning banging of the trash cans becomes the same whether one looks out the window and sees a bored sanitation worker or a police officer searching for criminal evidence. Does the Fourth Amendment really not see the difference?"); Tomkovicz, *supra* note 226, at 728-29 ("[E]xpressive and associational rights demand both

self denied Fourth Amendment protection to anything "a person knowingly exposes to the public, even in his own home or office."[292] Later the Court the suggested more broadly that exposing information even to a limited number of "third parties" eliminates any reasonable protection of privacy against the government.[293] It was partly on this basis that the Court found no reasonable expectation of privacy in numbers dialed on a telephone and transmitted to the telephone company,[294] information conveyed to a bank,[295] garbage left for curbside collection,[296] or statements made to someone who turns out to be a government informant.[297] Plainly there must be limits to this broader principle; otherwise no conversations would ever be protected by the Fourth Amendment. But the Court has never deviated from the narrower position, reflected in *Katz*, that sharing information with "the public" renders any expectation of privacy "unreasonable" and hence constitutionally unprotected.

There is a second way out of the dilemma created by the caveat in *Kyllo* about "general public use." Instead of giving effect to the qualitative differences between government surveillance and private snooping, the Court could simply take account of legal prohibitions on private snooping. In most places in the United States, after all, there are laws against intercepting your neighbor's telephone calls, breaking into his e-mail account, or using binoculars or a telescope to spy on him in his

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disclosure to others and a measure of protected confidentiality with respect to the government. . . . [T]he perversity of current analysis is its preclusion of the simultaneous presence of those two foundational requirements.")

[292] *Katz*, 389 U.S. at 351.

[293] Smith v. Maryland, 442 U.S. 735, 743-44 (1979); *see* Burkoff, *supra* note 60, at 537-38.

[294] *See Smith*, 442 U.S. at 743-44.

[295] *See* United States v. Miller, 425 U.S. 435, 443 (1976).

[296] *See* California v. Greenwood, 486 U.S. 35 (1988).

[297] *See* United States v. White, 401 U.S. 745 (1971). For evidence that these rulings run counter to "societal perceptions of intrusiveness," see Slobogin & Schumacher, *supra* note 255, at 734, 738-40. *See also* Litman, *supra* note 258, at 1307, 1309 (noting that "customers expect the merchants they patronize to respect their privacy," and that "[t]he fact that businesses respond to consumer privacy complaints with defensive apologies" suggests that they "are aware of, intentionally cultivate, and may even to some extent share" that understanding).

own house. Those laws reflect collective decisions about the proper bounds of privacy, and they in turn help to make those bounds real. So perhaps "general public use" in *Kyllo* should be read to mean widespread and *lawful* use of a device to see or hear the same things the government seeks to see or hear. Perhaps government use of binoculars, telescopes, radio scanners or hacking software should constitute a search at a minimum in those circumstances where private citizens are legally prohibited from using the similar devices to spy on one another.

The Supreme Court, though, has repeatedly suggested that local tort and property laws are all but irrelevant in assessing whether particular expectations of privacy are "reasonable" and hence constitutionally protected.[298] Garbage searches, for example, are not "searches" within the meaning of the Fourth Amendment, even when they are employed to discover what is occurring within a residence, and even when local laws prohibit similar intrusions by private citizens.[299] In part this ruling reflected the Court's reluctance—elsewhere reiterated but never fully explained—to allow Fourth Amendment rights to vary from one part of the country to another.[300] But in part it also reflected broader trends in search-and-seizure jurisprudence: the rejection of the "trespass theory" of the Fourth Amendment, and later the return to common law. For much of the past several decades, tying reasonable expectations of privacy to tort and property protections has seemed archaic,[301] a throwback to the discarded underpinnings of *Olmstead v. United States*.[302] Recently the Court has become much less interested in modernizing Fourth Amendment law and more interested in making it stable and predictable. But in returning to common law the Court has sought to insulate the Fourth Amendment not only against changing views of judges but also changing views of legislatures.[303] From this perspective, too, modern rules of tort and property—constantly subject to the tinkering of judges and legislatures—seem a poor anchor for Fourth Amendment rights.

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[298] *See Greenwood*, 486 U.S. at 43-44; Oliver v. United States, 466 U.S. 170, 183-84 (1984); Bivens v. Six Unknown Named Agents, 403 U.S. 388, 393-94 (1971); Mancusi v. DeForte, 392 U.S. 364, 368 (1968); Daniel B. Yeager, *Search, Seizure, and the Positive Law: Expectations of Privacy Outside the Fourth Amendment*, 84 J. CRIM. L. & CRIMINOLOGY 249 (1993).

[299] *See Greenwood*, 486 U.S. at 43-44.

[300] *See id.* at 44; *see also* Whren v. United States, 517 U.S. 806, 815 (1996) (refusing to allow Fourth Amendment protections to "vary from place to place and from time to time"); *Bivens*, 403 U.S. at 393-94 (explaining that "the Fourth Amendment is not tied to the niceties of local trespass laws").

[301] *See* Yeager, *supra* note 298, at 250-51, 265-69.

[302] 277 U.S. 438 (1938); *see supra* text accompanying notes 24-31.

Plainly, the zone of privacy protected by the Fourth Amendment cannot be defined in its entirety by reference to transitory, sub-constitutional rules of property and tort. Even if private citizens can eavesdrop lawfully on conversations carried out on portable telephones, that should not mean the government can do so without any constitutional limitations. Government surveillance *is* different than private snooping, not only because it tends to be carried out in different ways and for different purposes, but because the government poses specials kinds of threats.[304] So the legality of private snooping, like its technical feasibility, should not by itself mean that similar snooping by government agents violates no reasonable expectation of privacy. But when private snooping is *illegal*, there is even less reason to allow its technical feasibility to render government surveillance immune from constitutional restrictions.[305]

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[303] *See* County of Riverside v. McLaughlin, 500 U.S. 44, 60 (1991) (Scalia, J., dissenting); Sklansky, *supra* note 12, at 1793.

[304] *See, e.g.,* David A. Sklansky, *The Private Police*, 46 UCLA L. REV. 1165, 1271 (1999); Slobogin, *supra* note 68, at 429.

In addition, Fourth Amendment law and restrictions on private snooping may currently share some blind spots that Fourth Amendment law would be better off without. For example, Fourth Amendment law probably should take much more account than it currently does of how the government *uses* what it learns through surveillance. *See supra* note 105 and accompanying text. But this defect cannot be remedied by borrowing from tort doctrines regarding invasion of privacy, because those doctrines themselves pay only slightly more attention than Fourth Amendment law to how lawfully gathered information is disseminated. *See, e.g.,* Litman, *supra* note 258, at 1291.

[305] *See* Yeager, *supra* note 298, at 251-52 (suggesting that "[o]nly when the positive law recognizes no privacy interest in a given case need we resort to *Katz*, which certainly may recognize a privacy interest that the positive law has missed, but cannot be used to overcome a privacy interest that the positive law

The majority's caveat in *Kyllo* about technology in "general public use" thus flags a real problem in Fourth Amendment doctrine, and a problem the Court would be wise to address in two different ways. In the long term, sensible interpretation of the Fourth Amendment will require the Court to acknowledge the differences between government surveillance and private snooping, and to abandon the assumption that anything knowingly exposed "to the public" is therefore fair game for the police. In the short term, while the Court continues to make this assumption, it should at least reconsider its refusal to take property and tort law into account in assessing whether particular expectations of privacy are "reasonable" and therefore deserve constitutional protection. Pointing the Court in these directions is one of the ways in which *Kyllo* may help the Justices bridge more sensibly the past of the Fourth Amendment and its future.

CONCLUSION

Kyllo is a promising decision. It recognizes not only the ways in which new technology can erode a traditional sphere of privacy, but also the need for Fourth Amendment jurisprudence to focus simultaneously on the past, the present, and the future. It preserves the most important holding of *Katz*, that a "search" or "seizure" does not require a physical trespass, while wisely insisting that some "places"—in particular, homes—have special status under the Fourth Amendment. It uses common law more loosely and more sensibly than other recent decisions of the Supreme Court. And by leaving open the possibility that even technology in "general public use" may constitute a search if used to peer into homes, it provides an opportunity for the Court to reconsider certain aspects of search-and-seizure law that could amply benefit from reconsideration. Whether *Kyllo* ultimately proves a step forward or a step back will depend in part on what use the Court makes of those opportunities. It

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has identified"); *cf.* Tomkovicz, *supra* note 226, at 694 (noting that "[p]roperty notions and 'intrusions' may well be pertinent and useful elements in evaluating fourth amendment privacy claims," but cautioning against the "automatic invocation of these criteria across the board").

will also depend whether the Court keeps in mind that the home is not the only place where privacy deserves protection, and that reasonable expectations of privacy can attach to communications as well as to locations. And it will depend on how comfortable the Court remains with the burden of judgment entailed in taking "the long view, from the original meaning of the Fourth Amendment forward."[306]

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[306] *Kyllo*, 533 U.S. at 40.

PUBLIC PRIVACY: CAMERA SURVEILLANCE OF PUBLIC PLACES AND THE RIGHT TO ANONYMITY

Christopher Slobogin[1] *©2002*

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INTRODUCTION

> *In London, police say that every worker or shopper is caught on at least 300 cameras every day.*[1] *[In the United States] the security industry estimates that more than 2 million surveillance cameras are in use across the country. In Manhattan in 1998, volunteers counted 2,400 electronic eyes in public places used to catch everything from red-light runners at traffic intersections, shoplifters outside grocery and department stores, and drug sellers loitering near lampposts.*[2]

> *There was of course no way of knowing whether you were being watched at any given moment.* GEORGE ORWELL, *1984.*[3]

> *[I]f . . . dragnet type law enforcement practices should eventually occur, there will be time enough then to determine*

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[1] Alfred Lee, *Big Brother is Watching You*, THE STRAITS TIMES (Singapore), August 23, 2001, at 7.

[2] Spencer S. Hsu, *D.C. Forms Network of Surveillance*, WASH. POST, Feb. 17, 2002, at C1.

[3] at 3 (Harold Bloom ed., Chelsea House 1987)(1949).

> *whether different constitutional principles may be applicable.*
> United States v. Knotts.[4]

It is time to constitutionalize strictures on public surveillance. The advent of sophisticated technology that allows the government to watch, zoom in on, track, and record the activities of anyone, anywhere in public, twenty-four hours a day, demands regulation. Yet to date no meaningful constraints on this type of surveillance exist. The constant drumbeat of the "war on crime," louder than ever since the terrorist attack on September 11, has drowned out calls for greater control over technological surveillance of the streets. This article argues that the Fourth Amendment requires courts to regulate such surveillance–in particular camera surveillance of public activity–if the legislative and executive branches are unwilling to do so on their own.

The primary obstacle to this agenda is the United States Supreme Court decision in *United States v. Knotts,*[5] which considered the Fourth Amendment's application to tracking a car's movements with an electronic beeper. There the Court held that "[a] person traveling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place to another."[6] Even more significantly, it concluded that the fact that such movements might be detected through use of a beeper rather than via visual surveillance "does not alter the situation."[7] If the Fourth Amendment is not implicated by technological surveillance of a car traveling on public thoroughfares, it is unlikely to apply to enhanced surveillance of a person walking the streets.

As the portion of *Knotts* highlighted above indicates, however, the Court did broach a caveat to its conclusion–perhaps a tiny one, but nonetheless one that is very pertinent today. Knotts had argued that a holding that no search occurs when police track a person's car using a beeper would mean that

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[4] 460 U.S. 276, 284 (1983).

[5] 460 U.S. 276 (1983).

[6] *Knotts*, at 281.

[7] *Id.* at 282.

"twenty-four hour surveillance of any citizen of this country will be possible, without judicial knowledge or supervision."[8] Although the Court considered this observation irrelevant to the case at hand, where the beeper had merely been used to relocate the receptacle in which it had been placed after police lost visual contact,[9] it also acknowledged that the type of "dragnet" practices conjectured by Knotts might raise constitutional issues.[10]

That concession is important because in many urban, and even some suburban, areas today, full-time technological surveillance of the public is the norm.[11] While tracking devices comprise one aspect of this surveillance, it is cameras, positioned on buildings and telephone poles, that pose the biggest threat in this regard. The traditionally grainy video image, accessible at the time it is captured only by the camera operator, is rapidly being replaced by digital technology that produces top-quality images available in real time to police and to others at remote locations, including command centers and patrol cars.[12] Digitization allows much easier long-term storage than bulky videotape, thereby increasing the potential that images will be around longer and viewed by more people, and it also makes possible identification of those captured on camera through computer-based matching programs (called "biometric" technology).[13] Dragnet surveillance is upon us.

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[8] *Id.* at 283.

[9] The government had installed the beeper in a chloroform container, which an accomplice of Knotts purchased. *Id.* at 278. The accomplice placed the container in his car, which police followed. *Id.* The container was soon transferred to the car of another accomplice, which police also followed. But the driver used evasive maneuvers, and the police had to resort to the beeper signal to discover the whereabouts of the container, which was located in a cabin in which Knotts and others had constructed a drug laboratory. *Id.* at 278-79.

[10] *Id.* at 284.

[11] *See infra* text accompanying notes 29-32.

[12] *See infra* text accompanying notes 20-28. Even poor quality video can be enhanced with new technology. Elizabeth Mehren, *Technology Helps Put Surveillance in Focus*, L.A. TIMES, Oct. 9, 2001, at 24 (describing a company called "Salient Stills" that can create a more cohesive image out of blurry video by making a composite out of several frames).

[13] *See* Christopher S. Milligan, *Facial Recognition Technology, Video Surveillance, and Privacy*, 9 S. CAL. INTERDIS. L.J. 295, 3030-08 (1999)(describing digital and biometric technology).

The Court's unwillingness in *Knotts* to announce definitively that all public surveillance is unregulated by the Constitution may reflect an intuition that at some point this type of surveillance amounts to a serious infringement of "reasonable expectations of privacy," the concept that defines the scope of the Fourth Amendment.[14] Yet the Court's hesitancy to push that idea any further in *Knotts* probably stems not only from traditional judicial parsimony, but also from its perplexity over how one can possess "privacy" in public. When one's every movement is readily observable by others, how can one expect constitutional protection of those movements?

This article answers that question from a number of perspectives, summed up in the notion that we all possess a "right to anonymity," even when in public. Continuous, repeated or recorded government surveillance of our innocent public activities that are not meant for public consumption is neither expected nor to be condoned, for it ignores the fundamental fact that we express private thoughts through conduct as well as through words. The Fourth Amendment should be construed to recognize the right to public anonymity as a part of the privacy expectations that, to use the Supreme Court's well-known phrase, "society is prepared to recognize as reasonable."[15]

Part I of this article sets the stage for this argument by describing some of the surveillance technology that exists and the deficiencies in the way legislatures and courts have reacted to it. Part II develops the basis for the right to public anonymity. It draws from a number of different commentators and court decisions, as well as from an empirical study that demonstrates the extent to which ordinary citizens value the ability to walk and drive the streets without having to contend with constant technological monitoring. Part III then explicates the implications of the right to anonymity, relying to a significant extent on the recommendations of the American Bar Association's Standards on Technologically-Assisted Physical Surveillance,[16] for which I was the Reporter.

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[14] Katz v. United States, 389 U.S. 347, 360 (1967)(Harlan, J., concurring). *See infra* text accompanying notes 235-247.

[15] This language first appeared in Harlan's concurrence in *Katz*. *See Katz*, 389 U.S. at 361. It has since found its way into several majority opinions. *See, e.g.*, California v. Greenwood, 486 U.S. 35, 29-40 (1988); California v. Ciraolo, 476 U.S. 207, 211 (1986); United States v. Jacobsen, 466 U.S. 109, 122 (1984).

As Part III makes clear, a determination that public surveillance must be subject to constitutional review does not necessarily mean that the usual Fourth Amendment jurisprudence—involving warrants, probable cause, and so on–applies to this particular type of government activity. I argue that the courts' role should consist of setting minimal guidelines and monitoring police decisions to assure that such surveillance is conducted in a reasonable manner. More specifically, I contend that, given its relatively unintrusive nature, most public surveillance of individuals does not require probable cause in the traditional sense. At the same time, rules regarding who is involved in the targeting decision, the execution of the police action, and post-action record-keeping and disclosure should assume much more significance here than in connection with the classic police search. While most of the details would be left up to the political process, application of the Fourth Amendment to public surveillance would guarantee that, in contrast to the current state of affairs, courts would have the opportunity to provide legislative bodies with a "constitutional road map" on an issue that is already a potent symbol of government-citizen interaction, and one that is likely to become more so in years to come.[17]

A sub-theme of this article is that Fourth Amendment jurisprudence needs to expand its focus beyond the traditional individualized suspicion model, backed by a motion for exclusion, as the primary means of protecting individual interests. Surveillance of large numbers of people cannot, and should not, be justified on a person-by-person basis. Nor is the suppression remedy likely to be an effective deterrent in this context, since at best it benefits an infinitesimally small number of people subjected to the illegal surveillance, and in any event is a poor remedial fit with the types of violations that public surveillance involves. The dissonance between public surveillance and the individualized suspicion/exclusionary rule model suggests a need for rethinking both the type of justification and the manner of implementation the Fourth Amendment requires. Part IV makes some brief observations in this regard, based on some of my previous work.

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[16] AMERICAN BAR ASSOCIATION, STANDARDS FOR CRIMINAL JUSTICE–ELECTRONIC SURVEILLANCE (3D ED.), SECTION B: TECHNOLOGICALLY-ASSISTED PHYSICAL SURVEILLANCE [hereafter ABA STANDARDS]. The ABA Standards were drafted by a Task Force composed of judges, lawyers, law enforcement officials and privacy experts in a series of meetings from 1995 through 1997, and were subject to comment and redrafting by both the Standards Committee and the Council of the Criminal Justice Section of the ABA, before being approved by the ABA's House of Delegates in August, 1998.

[17] *See infra* text accompanying notes 311-15.

I. CAMERA SURVEILLANCE OF THE PUBLIC NOW AND IN THE NEAR-FUTURE

The government uses cameras to watch us in all sorts of venues, ranging from private stores to public restrooms, from government-owned buildings to public streets, from traffic intersections and parking lots to detentions of motorists by state troopers.[18] This article will focus on government camera surveillance of pedestrians in the public streets, as distinguished from video monitoring of building interiors and motorist stops. Thus, this article's use of the phrase "public camera surveillance" and its commonly accepted abbreviation "CCTV"–for closed circuit television–will refer only to the former type of surveillance. Even when defined in this narrow sense, public surveillance using camera technology is likely to increase exponentially in the next decade. As in other areas of technological development, the law is not likely to keep up.[19]

A. The Surveillance Dragnet

The future has arrived in Washington, D.C., in the wake of the terrorist attacks of September 11. Hundreds of government cameras are trained on streets, subways, school hallways, and federal facilities,[20] in a project that "makes Washington the first U.S. city to be able to peer across wide stretches of the city and to create a digital record of images."[21] State-of-the-art cameras allow operators to take advantage of "satellite-based optics" that enable them to see in the dark, capture words on a printed page from hundreds of feet away, and peer into buildings.[22] Only a few private cameras have been added into the mix at this point, but the head of the project states "I don't think there's really a limit on the feeds [the system] can take;" further, he wants "to build . . . the capability to tap into not only video but databases and systems across the region,"[23] eventually moving into any number of schools, businesses and neighborhoods.[24] All of this is to be accomplished through a $7,000,000 central control facility, which can then relay the feeds to nearly 1000 squad cars.[25]

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[18] *See infra* text accompanying notes 29-34.

[19] See Joyce W. Luk, *Identifying Terrorists: Private Rights in the United States and United Kingdom*, 25 HASTINGS INT'L & COMP. L. REV. 223, 256-57 (2002)(describing reactive approach of United States to privacy violations).

At present in the United States, only Washington, D.C. has such a sophisticated system.[26] But many other American cities have installed forerunner versions that are far from antiquated. For instance, Newark, N.J., Tampa, Fl., Virginia Beach, Va., and Memphis, Tenn., all have cameras, ranging in number from six to seventy-two, that cover large areas of public real estate and that can rotate 360 degrees, pan and tilt, and zoom in on subjects.[27] Tampa recently added several dozen cameras equipped with face recognition technology that purportedly matches captured faces with criminal arrest records (although the city discontinued the program when it failed to produce any arrests).[28]

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[20] Hsu, *supra* note 2, at C1.

[21] *Id.*

[22] *Id. See also*, Editorial, *Big Brother in the Capital*, ROCKY MOUNTAIN NEWS, Feb. 20, 2002, at 30A (noting that D.C. cameras do not produce "the blurry videos of convenience-store crimes [but] digital images from optical technology that can see in the dark and zoom in on a page of fine print from hundreds of feet away.").

[23] Hsu, *supra* note 2, at C1.

[24] Jess Bravin, *Washington Police to Play "I Spy,"* WALL ST. JOURNAL, Feb. 13, 2002, at B1, B6 (quoting Stephen J. Gaffigan, former Justice Department Director of Community Policing and head of the Washington Metropolitan Police Department camera installation project, as stating, "The next logical extension is into communities to aid our crime-fighting efforts.").

[25] *Id.*

[26] Hsu, *supra* note 2, at C1. But it may already be behind the curve. A digital system has been developed that allows camera images to be fed to a wireless laptop operator who can control the camera and other remote devices. *New Video Technology from AXCESS Inc.*, PR NEWSWIRE, Feb. 26, 2002.

[27] Marcus Nieto, *Public Video Surveillance: Is It An Effective Crime Prevention*

Many cities and towns are following suit in one way or another. A 2001 study by the International Association of Chiefs of Police found that 80% of the 207 responding American law enforcement agencies have deployed some sort of closed-circuit television and that another 10% will soon do so.[29] Much of this technology is "in-car" video designed to record police detention activities, or is placed at traffic intersections or in government buildings.[30] But about half the responding agencies use cameras in "high crime areas," 25% use them on "streets" and 15% use them in "parks."[31] It should also be noted that some of the traffic networks, although primarily designed to photograph the license plates of speeders, can peer inside a vehicle, at areas outside the intersection, and even into homes and offices alongside the targeted thoroughfares.[32]

All of these cameras are owned by the government (although in some locales they are operated by "volunteers" from the community[33]). In the private sphere, camera use is even more widespread. A nationwide survey of a variety of compa-

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Tool? CRB-97-005 (California Research Bureau, California State Library, June, 1997), at 14-18, *available at* http://www.library.ca.gov/CRB/97/05/.

[28] Lane DeGregory, *Click. BEEP! Face Captured*, ST. PETERSBURG TIMES, July 19, 2001, at 1D. *See also infra* note 67.

[29] International Association of Chiefs of Police, *Executive Brief, The Use of CCTV/Video Cameras in Law Enforcement, Executive Summary*, March 2001, at 4, *available at* http://www.theiacp.org/documents/pdfs/Publications/UseofCCTV.pdf [hereafter IACP Brief].

[30] *Id.*

[31] *Id.*

[32] M.J. Zuckerman, *Chances Are, Somebody's Watching You*, USA TODAY, Nov. 30, 2000 (describing $ 40 million surveillance center, controlling 110 remote control cameras in the suburbs of Washington, that can "peer inside a vehicle" and "easily see into the homes and offices along the interstates").

[33] Nieto, *supra* note 27, at 21. In Anchorage, Alaska, for instance, volunteer video patrols funded by the business community and state grants train cameras on residential and commercial sections of the city. *Id.* In Hollywood, California, cameras are monitored by local residents and Los Angeles Guardian Angels. *Id.* at 20.

nies, taken over five years ago, found that 75% use CCTV surveillance.[34] That fact becomes important even if the focus is solely state action, given the above-mentioned capacity to link these cameras to government command centers.

That is precisely what has happened in Great Britain, the champion of CCTV surveillance. There are now well over 800 local public video surveillance programs in operation in the United Kingdom,[35] involving between two and three million cameras,[36] and creating more video images per capita than any other country in the world.[37] Between 200,000 and 400,000 of these cameras monitor public areas;[38] many are equipped with zoom lenses that can read the wording on a cigarette packet at 100 yards and bring nighttime images up to daylight level.[39] And the installation of cameras is likely to continue unabated. Researcher Clive Norris concludes that "in the first decade of the new millennium, when average Britons leave their homes what will be remarkable is if their presence is not seen, their behavior not monitored and their movements not recorded by the omni-presence of the cameras, CCTV operators, and video recorders."[40] Most of these programs are jointly operated and managed by law enforcement and the private sector.[41] Almost all are linked to police stations, but quite a few are also monitored by private security guards.[42] Many other European countries have similar systems.[43]

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[34] Karen Hallberg, Nationwide Survey of Companies With Security Expenses, Cahners Publishing Company, September, 1996 (on file with author).

[35] This was the estimate in 1996. Nieto, *supra* note 27, at 7.

[36] *See* Lee, *supra* note 1, at 7 (reporting that in 2001, Great Britain had installed 2 million cameras and was planning on spending another $100 million to install thousands more).

[37] Nieto, *supra* note 27, at 8.

[38] Simon G. Davies, *Re-Engineering the Right to Privacy: How Privacy Has Been Transformed from a Right to a Commodity*, *in* TECHNOLOGY AND PRIVACY: THE NEW LANDSCAPE 150 (Phillip E. Agre & Marc Rotenberg eds., MIT Press 1997) (estimating that 200,000 cameras cover public spaces and indicating that this figure would grow at 20 to 30% annually).

[39] *Id.*

[40] Clive Norris, *From Personal to Digital: CCTV, the Panopticon and the Technological Mediation of Suspicion and Social Control*, *in* SURVEILLANCE AND SOCIAL SORTING: PRIVACY RISK AND AUTOMATED DISCRIMINATION 11 (David Lyon, ed. 2002).

[41] Nieto, *supra* note 27, at 8.

[42] *Id.*

Today, these cameras are operated primarily by people. But the camera systems of the (not-so-distant) future will be much more automated. Motion detection systems will be able to discern when movements are out of the "ordinary" and then alert human assessors, who are thereby spared sifting through mountains of data.[44] License plate recognition systems will be able to identify those cars that enter unauthorized areas or that move in the wrong direction.[45] Facial recognition systems, more sophisticated than the one used in Tampa, will trigger a signal when people with criminal records, outstanding warrants, or inappropriate authorization are spotted.[46] Eventually cameras will even be equipped with "see-through" technology that can detect when an individual is carrying a gun.[47]

This huge investment in CCTV technology here and abroad is based on two premises. The first assumption, of course, is that it enhances public safety. The second is that it does so less expensively than any equally effective alternative. Both premises are subject to some doubt.

Reports abound of prodigious camera-induced drops in street crimes, in the 50 to 70% range.[48] But these accounts are of questionable accuracy (at least those that describe crime reduction due to *street-based* CCTV[49]). A recent commentary on the reports about the United Kingdom's CCTV system describes the glowing statistics as "*post hoc* shoestring efforts by the untrained and self-interested practitioner."[50] More neutral analysis of the efficacy of public surveillance paints a different picture. A meta-review of thirteen of the better-conducted studies carried out in that country through 2000 concluded that "the criminological evidence as to CCTV's effectiveness in reducing crime does not support the almost exponential increase in cameras on British streets as a crime prevention measure."[51] Another recently concluded meta-analysis of the twenty-two most carefully conducted studies in the United Kingdom and North America indicated that while half of the studies found a "desirable effect on crime," five found an "undesirable" effect, and six found no effect or an uncertain effect on crime;

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[43] *Id.* at 9-10 (describing CCTV programs in Canada, France, Ireland, Spain, Monaco, Russia, Italy, China, Iran and Iraq).

[44] CLIVE NORRIS & GARY ARMSTRONG, THE MAXIMUM SURVEILLANCE SOCIETY: THE RISE OF CCTV 212-14 (1999)(describing "intelligent scene monitoring").

[45] *Id.* at 214-16 (describing "automatic licence plate identification"). This system is already in use in London. *See id.*

[46] *Id.* at 216-19 (describing "digital facial recognition systems").

[47] *See* David Harris, *Superman's X-Ray Vision and the Fourth Amendment: The New Gun Detection Technology*, 69 TEMP. L. REV. 1, 7-8 n.38 (1996)(describing this technology).

[48] *See* Lee, *supra* note 1 (reporting British Home Office figures showing a 63% decline in crime rates in areas where cameras have been installed); Nick Taylor, *Closed Circuit Television: The British Experience*, 1999 STAN. TECH. L. REV. ¶ 12 (reporting British police claims that car thefts in King's Lynn were reduced by 91%, and general crime in Bedford and Swansea was reduced by 55% and 51%, respectively); Emelyn Cruz, *Video Cameras Shooting Down Some Crime Rates*, THE SEATTLE TIMES, July 28, 1996 at B-1 (in Tacoma after cameras were installed, crimes such as assaults, trespassing, prostitution and vandalism dropped from 244 reported incidents in 1993 to 87 in 1994, and 125 in 1995).

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[49] Taylor, *supra* note 48, at ¶¶ 13-14. The success of CCTV in stores, transportation centers and the like is better documented. For instance, London's Gatwick Airport saw a 78% drop in crime in its car parks after cameras were installed, and Chesterfield railway station a drop in vehicle crime of 96%. Stephen Wright, *Police Release CCTV Images of BBC Presenter*, DAILY MAIL (London), May 3, 1999, at 2. But even here the effectiveness of CCTV is not proven beyond doubt. *See* Emma Short & Jason Ditton, *Does CCTV Affect Crime?*, 2 CCTV TODAY, Mar. 1995, at 11 (1995)(the results of independent and competently conducted evaluations of CCTV systems installed in car parks, buses, housing estates, football stadia and the underground are "fairly contradictory regarding the effectiveness of CCTV as a crime prevention method," with some showing no effect, others showing high levels of displacement rather than overall reduction, and others showing clear reductions).

[50] Ray Pawson & Nick Tilley, *What Works in Evaluation Research?* 34 BRIT J. CRIMINOLOGY 291, 294 (1994); *see also*, Taylor, *supra* note 48, at ¶13 (stating that "the vast number of evaluation schemes that have been carried out to date have been undertaken by those with an interest in promoting the cameras and have been technically inadequate").

[51] Clive Norris, Remarks at a Conference of Experts–Video Surveillance: A Crime Prevention Instrument in European Comparison 32 (Feb. 22-24, 2001)(manuscript available at Georg-August University, Gottingen, Germany and from author). Another ironic development is that pictures of crime, captured on CCTV, may actually make people feel less safe and less willing to frequent the targeted areas. Jason Ditton, *Glasgow City's Cameras–Hype or Help?*, SCOTTISH CENTER FOR CRIMINOLOGY, *available at* http:www.scotcrime.u-net.com/news1.htm (reporting that, when a large sample of people was interviewed one year after Glasgow installed cameras, "most didn't feel any safer and more said they would avoid the city centre," and speculating that the publicity from the crimes caught on camera was partly to blame).

ultimately, "the average overall reduction in crime was a rather small four per cent."[52]

One example of such research comes from Glasgow, one of the first major cities to adopt CCTV. There, a three-year study conducted by criminologists found that although crime was reduced in "certain categories, . . . there was no evidence to suggest that the cameras had reduced crime overall," and "[t]he cameras appeared to have little effect on clear up rates for crimes and offences."[53] Anecdotal statistics from the more recent past are equally disappointing. In London, where cameras abound, even street robberies–the crime CCTV is supposed to be best at deterring–increased in 2002.[54] In Sydney, Australia, a relatively new camera system produced only one arrest every 160 days.[55]

American cities have had similar experiences. Early systems set up in Hoboken, N.J., Mount Vernon, N.Y., Miami, Fl., Charleston, S.C., and Detroit, Mich., were discontinued because they were not cost effective.[56] Cameras in Times Square were dismantled after producing fewer than ten arrests in twenty-two months.[57] These failures might be attributed, at least in part, to the primitiveness of the technology used. However, Oakland, Calif., recently ended its three-year experiment using high-definition cameras–able to read a flyer hundreds of yards away and a license plate more than a mile away–because it had no "conclusive way to establish that the presence of video surveillance cameras resulted in the prevention or reduction of crime."[58]

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[52] Brandon C. Welsh & David P. Farrington, *Crime Prevention Effects of Closed Circuit Television: A Systematic Review* 41 (August, 2002)(Home Office Research Study 252, on file with author). This study also noted that all five North American CCTV studies showed no evidence of a desirable effect on crime. *Id.* at 42.

[53] *See* Jason Ditton, *The Effect of Closed Circuit Television Cameras on Recorded Crime Rates and Public Concern About Crime in Glasgow*, SCOTTISH CENTER FOR CRIMINOLOGY, *available at* http://www.scotcrim.u-net.com/research.htm.

[54] UPI, *"Spy" Cameras vs. Villains in Britain* (Mar. 8, 2002), *available at* http:www.gyre.org/news/cache/1885. This article also notes that in London's Newham district, with 300 cameras, street crime in 2001 increased by one-fifth over the previous year, and car thefts increased by 3.6%.

[55] Bruce Andrews, *Here's Looking at You*, SYDNEY MORNING HERALD, Dec. 26, 2001, at 16, *available at* 2001 WL 31626512.

[56] Quentin Burrows, *Scowl Because You're on Candid Camera: Privacy and Video Surveillance*, 31 VAL. U. L. REV. 1079, 1103 (1997).

[57] *Id. See also* Maureen O'Donnell, *Cameras Around Every Corner*, CHICAGO SUN-TIMES, Feb.18, 1996, at 2, *available at* 1996 WL 6732224.

There are many reasons why cameras might not be effective at reducing crime in the areas on which they are trained. To understand why, consider the three ways cameras can, in theory, be useful: (1) they might help spot incipient crime that can be prevented, or at least solved, through immediate action; (2) they might create a record of crime that can be used in identifying and convicting perpetrators at some later point in time; and (3) they might deter crime. In each of these three areas, obstacles to smooth functioning exist.

Cameras' ability to help immediately nab potential or actual perpetrators is circumscribed by a number of factors. Camera operators may not observe crime in the targeted area because the cameras have been destroyed or tampered with,[59] bad lighting or obstacles prevent good viewing (e.g., drug transactions carried out between cars),[60] or the operator is distracted[61] or unable to recognize what is happening in ambiguous

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[58] *Cameras in the District of Columbia: Before the House Comm. on Gov. Reforms*, 107th Cong. 3 (2002)(statement of Johnny Barnes, Executive Director, ACLU of National Capital Area)(quoting Report of Joseph Samuels, Jr., Chief of Police, Oakland Police Department to Oakland City Council), *available at* http://www.aclu.org/congress/1032202a.html.

[59] Liz Kay, *Camera Becomes New Weapon in War on Graffiti Vandalism: Officials Say the Motor Sensing Device Deters Taggers, but Critics Say It Just Pushes the Problem to New Location*, L.A. TIMES, Dec. 24, 2001, at B4, *available at* 2001 WL 28939163 (quoting a detective saying that gang members "rip [the cameras] off. They break them, they turn them, they shoot them up. It's more of a game for them. If they are going to do their illegal activity, they are going to make sure [the cameras] are not working.").

[60] *See* UPI, *supra* note 54 (quoting one official who said "[t]here are hundreds of thousands of nooks and crannies left" that cameras cannot view, and noting that some criminals "are targeting luxury cars on the move so that any view the cameras gets of them is fleeting at best" and that "[o]thers conceal their street muggings by grabbing their targets in a clinch that, on CCTV, looks like nothing more than a romantic hug.").

[61] According to Norris & Armstrong:

> It is not possible for one or even two operatives to continuously monitor the output of a twenty-camera system and, of course, as soon as they selectively focus on one incident, other screens are going unmonitored. This is exacerbated by the inherent boredom of watching dozens of

situations.[62] If operators do see something suspicious, their distance from the scene sometimes makes them overcautious in concluding a crime is occurring.[63] And even when incipient crime is clearly identified, police will not necessarily be deployed. A dearth of sufficiently proximate officers (created in part by the belief that fewer police are needed when cameras are present[64]), lack of or poor communication between the control room and those in the street,[65] and even police fear of being caught on camera and having one's actions misinterpreted can limit law enforcement response.[66] All of these problems have their analogues in systems that are more fully automated. Alarms may not sound because of technological flaws,[67] or de-

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> screens and the inattentiveness that results. But even the most attentive of operators are swamped by the volume of information. For instance . . . a medium-sized 24-hour city centre system with twenty cameras [generates] a quite staggering 43 million "pictures" per day.

NORRIS & ARMSTRONG, *supra* note 44, at 211.

[62] *See generally* Remarks of Thomas Coty (Manager of the National Institute of Justice Video Sensor and Processing Program), at Meeting of the Security Industry Association and International Association of Chiefs of Police, at 39 (Apr. 17, 2002)(transcript *available at* http://www.securitygateway.com/E/E3_5.html [hereafter SIA and IACP Meeting](stating "[O]ne of the problems we see in CCTV is that if it's being operator maintained or monitored, after about twenty minutes the eyes start to glaze and it's difficult to keep monitoring the monitor."). *Id.*

[63] Norris, *supra* note 40, at 19 (CCTV operatives . . . are . . . always accountable to justify the request for intervention and, unlike the patrol officer, do not have the benefit of hindsight, [which] serves to limit requests for deployment to only those events that can generate the most concrete and strongest justifications."). Note, however, that operators can be overaggressive in singling out certain types of suspects. See *infra* text accompanying notes 147-57.

[64] *See* Taylor, *supra* note 48, at ¶ 32 (noting that soon after cameras were introduced in Bingley, Yorkshire, the number of officers based in town was reduced from twenty-four to three).

[65] Norris & Armstrong, *supra* note 44, at 166 (concluding that the reason many suspects reported by a field agent to the camera operator were never located by the operator was that "location is often imprecise and descriptions are too vague to significantly differentiate a suspect from the crowd").

[66] *Id.* at 188-96 (describing implications of fact that "the practice of street policing, which traditionally enjoyed low visibility from managerial scrutiny is now potentially subject to a far more intrusive supervisory gaze").

[67] Tampa abruptly suspended its face recognition program after less than two months, apparently because the system failed to identify correctly a single face in its database of suspects, and thus did not result in any arrests. *The Failure of Facial Recognition Technology in Tampa, Florida* (ACLU Special Report), January 3, 2002, at 1 (on file with author). This report also describes several studies indi-

ployments may not occur because of human ones.

Attempts to memorialize the crime and the perpetrator on tape can also run into difficulty. Sometimes tapes are destroyed before authorities realize they may be helpful in solving crime.[68] Nor does retention of the tapes guarantee identification. Recordings are sometimes of poor quality[69] (although, as noted earlier, digitalization has gone a long way toward rectifying this problem), images caught on tape are always subject to interpretation (think of the Rodney King video[70]), and perpetrators are hard to identify even with good images.[71] Even if tapes are preserved and the human error factor is assumed away, obtaining the relevant frames can literally consume days of effort by the police.[72]

Finally, cameras cannot be effective deterrents if their presence is not made known to potential perpetrators, which apparently is often the case.[73] And even when the cameras'

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cating that, to date, the technology has not been very effective. *Id.* at 3.

[68] *See generally* Remarks of Stephen McMahon (Central District Commander for Baltimore City), SIA & IACP Meeting, *supra* note 62, at 39 (noting that tapes are destroyed after ninety-six hours and that tapes of a few "non-crime related" incidents were therefore lost).

[69] Kay, *supra* note 59, at 4 (stating that, with respect to one system, Los Angeles "[o]fficials have not made any arrests based on photos taken by the camera at any location [because] pictures are seldom clear enough to identify the person responsible for the graffiti."); Zuckerman, *supra* note 32, at 1A (noting that tape at ATM machine had been used so many times that image of person using a murder victim's card was too obscured for identification purposes).

[70] Although the tape clearly showed officers beating King, it did not capture the high speed chase and King's aggressive actions prior to the beating. *See* GEORGE P. FLETCHER, WITH JUSTICE FOR SOME 38-41 (1996)(recounting the behavior of King and the officers prior to the videotaping); *see also The 1991 Rodney King Police Brutality Case and the Los Angeles Riots*, at http://www.crimsonbird.com/history/rodneyking.html (discussing police chase and subsequent beating).

[71] Zoe Henderson et al., *Matching the Faces of Robbers Captured on Video*, 15 APPLIED COGNITIVE PSYCHOLOGY 445 (2001)(reporting research finding that matching unfamiliar faces from both high- and low-quality CCTV with photographs is "highly error-prone").

[72] Norris, *supra* note 40, at 17 (recounting one case which involved 4000-man hours of video analysis), & at 35 (noting that multiplexing cameras, a common efficiency procedure that takes only a few frames per second from each of many cameras, produces a loss of information that can make incident spotting difficult); *cf.* State v. Bonnell, 856 P.2d 1265, 1271 (Haw. 1993)(describing accumulation of fifty videotapes with twelve hundred hours of footage, containing just one minute of conduct that might have reflected gambling activity).

[73] Jason Ditton & Emma Short, *Evaluating Scotland's First Town Centre*

presence is conspicuous, certain types of offenders are too preoccupied or dense to notice, or are oblivious (as with rowdy revelers)[74] or uncaring (as with nighttime prowlers who wear masks, wigs, or other disguises).[75] A 1995 study reported that criminals believe the presence of cameras is the least of their concerns in considering whether to rob businesses.[76] Also of note is that the presence of cameras may simultaneously *reduce* surveillance by citizens, who assume that the cameras will do the job.[77]

Findings that crime has dropped in areas exposed to cameras must also be tempered by two facts. In some studies, part of the crime reduction was undoubtedly due to other factors, including additional crime control measures undertaken at the time the cameras were installed and decreasing crime rates overall.[78] Second, many of these studies did not take into ac-

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CCTV Scheme, *in* SURVEILLANCE, CLOSED CIRCUIT TELEVISION AND SOCIAL CONTROL (Clive Norris et al., eds., 1998)(after a year of cameras in Glasgow's town center, "only between a quarter and a third of the ambulatory population were even aware of their existence"); John Naughton, *Video Eyes Are Everywhere: "Big Brother" in Britain*, THE OBSERVER (U.K.), Nov. 13, 1994, at 13 (noting that most people in Britain are unaware of the extent to which camera surveillance occurs).

[74] Chris Arnot, *We've All Been Framed: It's Not Big Brother Who's Watching Over Us–It's All His Young Siblings, Monitoring Our Every Move in Public (and Many Private) Places*, THE GUARDIAN (UK), Dec. 13, 1999 (stating "[w]hen young men have had between five and 10 pints of lager and their honour is challenged, the presence of a camera makes no difference.").

[75] *See also*, Emma Short & Jason Ditton, *Seen and Now Heard: Talking to the Targets of Open Street CCTV*, 38 BRIT. J. CRIMINOLOGY 404, 418-20 (1998)(noting that eight of thirty criminals interviewed claimed CCTV cameras had no effect on their pattern of offending, with others saying they committed offenses outside of camera range, and a "small minority" saying they gave up offending altogether).

[76] See Nieto, *supra* note 27, at 11 (discussing the results of a study undertaken by Rosemary Erickson of the Athena Research Corp.).

[77] Stephen Graham, *Towards the Fifth Utility? On the Extension and Normalisation of Public CCTV*, *in* SURVEILLANCE, CLOSED CIRCUIT TELEVISION AND SOCIAL CONTROL, *supra* note 73, at 89, 106 ("Anecdotal evidence has already emerged that the Newcastle West End scheme has significantly cut phone calls to the police, because local residents assume that the CCTV system will have spotted any event, anywhere, and at any time.").

[78] For instance, Tacoma, Wash., one of the few American cities that has kept crime statistics and reported significant reductions as a result of CCTV, *see supra* note 48, added street lights, removed graffiti and cleaned up vacant lots at the same time it installed cameras. Burrows, *supra* note 56, at 1124 n.361. In Wash-

count the possible "displacement" effect of the cameras, despite the likelihood that any crime that surveillance does deter is simply pushed into an area that does not have cameras.[79]

These observations should not lead to the conclusion that public video surveillance has little or no impact on crime. Although law enforcement statistics are probably inflated (on those few occasions when they exist[80]), it must be acknowledged that even more careful, privately conducted studies indicate that some cities experience a noticeable reduction in offense rates after camera installation. For instance, the town center of Airdrie, Scotland experienced a 21% drop in crime over the two year period after cameras were set up, with no obvious evidence of displacement, and after factoring out other explanatory variables such as a drop in overall crime rates.[81]

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ington, D.C., a crime cleanup on Rhode Island Avenue was "jumpstarted by the camera but it then was followed up with a lot of other action." John Thompson (Lieutenant Colonel in United States Army), SIA & IACP Meeting, *supra* note 62, at 12; *see also*, Ben Brown, *Closed Circuit Television in Town Centres: Three Case Studies*, 68 POLICE RES. SERIES 37 (1995)(stating that in Birmingham efforts were made at "pedestrianisation" of key areas of the city center at the same time cameras were installed), *available at* http://www.homeoffice.gov.uk/rds/orgpdfs/fcdps68.pdf); Norris, *supra* note 51, at 16 ("the rapid growth of the number of CCTV systems [in the United Kingdom] (between 1993 and 1997) occurred at precisely the same time as the only sustained fall in recorded crime since the 1950s"). The latter paper recounts a number of other reasons reported crime reductions may not be accurate or not attributable to CCTV.

[79] *See* David Skinns, *Crime Reduction, Diffusion and Displacement: Evaluating the Effectiveness of CCTV*, *in* SURVEILLANCE, CLOSED CIRCUIT TELEVISION AND SOCIAL CONTROL, *supra* note 73, at 185 (noting that although the town center experienced a 16% reduction in crime after camera installation, crime in the surrounding townships jumped by 31%, so that overall reduction was only 6%); Brown, *supra* note 78, at 35 ("Since the installation of cameras, the incidence of [street robbery, theft from the person and theft from a motor vehicle] in areas surrounding zone A has increased sharply, and by the end of the study period, the number of offences per month is over three times as high as when the cameras were installed."); Chris Sarno, *The Impact of Closed Circuit Television on Crime in Sutton Town Centre*, *in* TOWARDS A SAFER SUTTON? CCTV ONE YEAR ON (Marjorie Bulos & Doug Grant eds., 1996)(reporting that after camera installation street thefts declined by 7%, but thefts inside commercial premises increased by 30%).

[80] IACP Brief, *supra* note 29, at 5 (96% of the U.S. agencies surveyed by the IACP "do not incorporate measurement systems of any kind" to determine the effect of CCTV on crime rates).

[81] Emma Short & Jason Ditton, *Does Closed Circuit Television Prevent Crime? An Evaluation of the Use of CCTV Surveillance Cameras in Airdrie Town Center*,

Newscastle experienced significant drops in particular crimes: 35% for criminal damage, 50% for motor vehicle theft, and 56% for burglary, compared to 25%, 39% and 39% reductions for the same crimes in the control areas.[82] A third United Kingdom study found a 25% drop in crime sustained over a two-year period, with no displacement effects.[83] Although these figures are significantly lower than initial law enforcement claims,[84] they are nonetheless impressive.[85]

When all the data are looked at closely, a fair conclusion is that well-positioned, sophisticated cameras, run by competent staff, might be able to reduce some types of street crime, particularly theft, by 10 to 25% in "high crime areas," compared to similar public areas that have no cameras, with only a small displacement effect.[86] The second question that must be answered by careful policymakers is whether this reduction is cost-effective. Could other alternatives, such as more patrols, better lighting and greater community participation in law enforcement, achieve equal or better results at less cost?

I will not try to answer that question here. Some information about the cost of CCTV can provide a useful starting point,

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THE SCOTTISH OFFICE CENTRAL RESEARCH UNIT (1995), *available at* http://www.scotland.gov.uk/cur/resfinds/crf08-00.htm.

[82] *See* Brown, *supra* note 78, at 17. Brown also notes, however, that the decline in vehicle thefts in the CCTV area "appears to fade after 8 months and the number of thefts of vehicles rises sharply." *Id.* at 20.

[83] Rachel Armitage et al., *Burnley CCTV Evaluation*, *in* SURVEILLANCE OF PUBLIC SPACE: CCTV, STREET LIGHTING AND CRIME PREVENTION (Kate Painter & Nick Tilley eds., 1999).

[84] Arnot, *supra* note 74 (noting that law enforcement claimed a 74% crime drop in Airdrie).

[85] *But see* Norris, *supra* note 51, at 26-27 (noting that a number of other well-done studies obtained "mixed results" compared to these "unequivocal success stories"). In fact, several studies showed that cameras had no overall impact on crime. *Id.*

[86] Although not based on controlled studies, statements by American police officials are consistent with this conclusion. Remarks of Stephen McMahon, *supra* note 68, at 4 (noting reductions of 18 and 25% in first two years of CCTV program in Baltimore); Remarks of Joseph Dunne (Chief of Housing Police, New York City), SIA & IACP Meeting, *supra* note 62, at 21 (noting reduction of 25% in first 6 months of camera use in New York housing projects). *But see supra* note 52 (describing meta-study which concluded that U.S. studies have consistently found that CCTV does not reduce crime).

however. In the United Kingdom, a number of local authorities have yearly operating budgets of well over $500,000 for camera systems that cover downtown areas.[87] The annual budget of each of the several 100-camera systems in New York City housing projects is approximately $850,000 just for staffing (i.e., not including the upfront costs of the cameras, their maintenance, new tapes, tape storage, and associated expenditures).[88]

Whether equally effective alternatives would be cheaper is harder to calculate. But it can be noted that even a relatively successful CCTV system may not "pay" for itself. One study indicated that good CCTV systems can make significant dents in shoplifting, but that the value of merchandise retained would not equal expenditures on such a system for nearly five years;[89] as one researcher noted, "it might be more rational to just accept the losses."[90] Where violent crime is concerned that kind of reasoning is less palatable, and expensive surveillance systems might be endorsed if even just a few such crimes will be prevented or detected.[91] Unfortunately, however, violent crimes are probably the most difficult offenses for cameras to prevent or deter, given their often spontaneous nature.[92]

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[87] G. Wade, *Funding CCTV: The Story So Far*, 7 CCTV TODAY (1998), at 28 (stating that several local townships are "dealing with operating budgets in excess of £500,000 per year").

[88] Remarks of Joseph Dunne, *supra* note 86, at 22.

[89] Norris, *supra* note 51, at 23 (describing a study by A. Beck & A. Willis, Crime and Security: Managing the Risk to Safe Shopping (1995)).

[90] *Id.*

[91] *See* Davies, *supra* note 38, at 150 (quoting a Home Office spokesman who, in commenting on the potential of CCTV, stated "if this all saves just one life, it's worth it."). Widespread CCTV could also help apprehend individuals like the sniper who recently terrorized Washington, D.C., although such individuals would probably be adept at avoiding overtly positioned cameras.

[92] Vaseekaran Sivarajasingam & Jonathan P. Shepherd, *Effect of Closed Circuit TV on Urban Violence*, 16 J. ACCIDENT & EMERG. MED. 255 (1999)(finding in a study of three Welsh cities "an overall reduction in town/city centre violence . . . of 1% in the 2 years after closed-circuit TV installation," which the authors concluded meant that CCTV "had no obvious influence on levels of assaults," a finding they said was consistent with the British Crime Survey finding of "no overall change" in rates of urban violence following the installation of public surveillance devices); Norris & Armstrong, *supra* note 44, at 166-67 (finding that although 38% of the 45 deployments they witnessed were for violent action, most of them were fist fights and none involved death or required an ambulance).

In sum, it is not clear that public surveillance using cameras is always a worthwhile investment from a public safety perspective. That conclusion is unlikely to slow the continued proliferation of such surveillance, however. "Common sense" judgments, which view the efficacy of cameras systems as a foregone conclusion, are likely to dominate any debate on the matter.[93] Politicians will continue to point to cameras as a "silver bullet" method of crime prevention.[94] Recent terrorist attacks will only add to the pressure to provide protection through surveillance.[95] Although, as noted above, some cities have terminated CCTV programs that have failed to reduce crime, there is also the possibility that once the newer, more expensive systems are set up, inertia will prevent their disassembly even in the face of proven ineffectiveness. The primary question is not whether such systems will be installed or maintained, but whether and how their use will be regulated.

B. *Current Legal Regulation of Public Camera Surveillance*

Meaningful legal strictures on government use of public surveillance cameras in Great Britain, Canada, and the United States are non-existent. Great Britain's *Code of Practice* sets out operating standards "but has no mechanism for accountability or enforcement."[96] Similarly, while governments in Ontario, British Columbia, and Alberta, Canada, have adopted very extensive guidelines governing camera and tape use, storage, training, and the like–all of which are framed in terms of what governments "must" or "should" do–ultimately they are merely precatory; no administrative, civil or criminal sanctions attach if they are breached.[97] A few American cities have adopted "guidelines" as well, again none of them enforceable.[98] In a recent meeting of the International Association of Police Chiefs, relatively comprehensive model rules were drafted, but the premise of the meeting was that "voluntary guidelines" are sufficient.[99]

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[93] Burrows, *supra* note 56, at 1106 (quoting a property owner who was a catalyst in implementing a CCTV system in Los Angeles as stating "[y]ou can't commit crimes if you know Big Brother is watching you.").

[94] Davies' comments about government attitudes in the United Kingdom are instructive:

> The government has placed video surveillance at the center of its law-and-order policy. . . . CCTV is quickly becoming an integral part of crime-control policy, social control theory, and "community consciousness." It is widely viewed as a primary solution for urban dysfunction. It is no exaggeration to conclude that the technology has had more of an impact on the evolution of law enforcement policy than just about any other technology initiative in the past two decades.

Davies, *supra* note 38, at 151.

[95] Lisa Guernsey, *Living Under an Electronic Eye*, N.Y. TIMES, Sept. 27, 2001, at G1, col. 5 (describing poll conducted after September 11, 2001, that showed increased public support for giving up "some personal freedoms in order to make the country safe from terrorist attacks," and that showed increased support for governmental monitoring of e-mail and phone conversations on a regular basis).

[96] Davies, *supra* note 38, at 152; *see also*, Taylor, *supra* note 48, at ¶ 35 &

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n.52 (stating that "the use of public space visual surveillance in Britain remains largely outside of the law," although noting that storage of surveillance results may be covered by statute); A. Michael Froomkin, *The Death of Privacy?*, 52 STAN. L. REV. 1461, 1539 (2000)("The world leader in the deployment of surveillance cameras, the United Kingdom, has some of the strictest data protection rules in the world, but this has done little or nothing to slow the cameras' spread.).

[97] GUIDELINES FOR USING VIDEO SURVEILLANCE CAMERAS IN PUBLIC PLACES (2001), available at http://www.ipc.on.ca/english/pubpres/papers/video-gd.pdf. These guidelines were promulgated by the Information and Privacy Commissioner, Ontario, Canada. The introduction to the Guidelines state that "[t]hese Guidelines build on those developed by" the governments of British Columbia and Alberta, Canada. *Id.* For the most part, they are a good model for CCTV regulation. Further, in section 8, they provide for "regular audits" to "address the institution's compliance with the operational policies and procedures." *Id.* They also state that "[a]n external body may be retained in order to perform the audit" and that "[a]ny deficiencies or concerns identified by the audit must be addressed immediately." *Id.* But there are no provisions regarding sanctions if the audit reveals misconduct.

[98] Remarks of John Firman (Director of Research for the International Association of Chiefs of Police), SIA & IACP Meeting, *supra* note 62, at 32 ("the massive amount of policies, procedures and guidelines in place with eighteen thousand law enforcement agencies all over the country are voluntary"). The bigger problem is the complete lack of rules in many jurisdictions. The IACP survey indicated that 53% of the respondents had no formal written guidelines or policies governing use of CCTV. IACP Brief, *supra* note 26, at 9.

[99] *See* GUIDELINES FOR CLOSED CIRCUIT TELEVISION (CCTV) FOR PUB. SAFETY AND COMMUNITY POLICING (Proposed Official Draft No. 9, 2000), *available at* http://www.securitygateway.com/E/E3_2.html (calling for an internal "system of review or audit"); Remarks of Lessing Gold (Moderator), SIA & IACP Meeting, *supra* note 62, at 19 (describing framework for developing IACP Guidelines on CCTV); *see also* Remarks of Barry Steinhardt (Associate Director and Chair of Cyber-Liberties Task Force, ACLU), SIA & IACP Meeting, *supra* note 62, at 33 ("Voluntary guidelines are cold comfort to someone who has their rights violated

The one American statute that deals specifically with video surveillance of public activities comes from Arizona.[100] That law makes it a misdemeanor for a person to use video "surveillance" in a public place without prominently and legibly posting notice that such surveillance is taking place.[101] The statute exempts journalists from this prohibition, but not law enforcement.[102] As the language indicates, however, if notice of the surveillance is posted then the law is not violated, and no other strictures are placed on the operation of the cameras or on access to surveillance results.[103] Apparently no other states or municipalities have adopted anything similar to this relatively undemanding law.[104]

A principal reason for the virtually unanimous resistance to a tougher stance on public video surveillance in the United States is the assumption that courts are not likely to find unregulated public camera viewing inimical to the Constitution or any other established body of law. Video surveillance of the home interior and similar areas is probably governed by the

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and who wants to go to court to have those rights enforced.").

[100] ARIZ. REV. STAT. §§ 13-3019 (2001)

[101] *Id.*

[102] *Id.* It also exempts surveillance of people who have given written consent to the surveillance, but not, somewhat surprisingly, presumptively consensual video of activities such as family gatherings and the like when conducted by people who are involved in the gathering. *Id.*

[103] *Id.*

[104] Remarks of Thomas Lambert (Attorney), SIA & IACP Meeting, *supra* note 62, at 50 ("there really isn't currently any statute that expressly deals with CCTV use"). In 2002, the Virginia legislature considered a statute that would require a judicial order for the use of facial recognition technology outside of correctional institutions. *See* HB 454 Gen. Assem., Reg. Sess. (Va. 2002)(seeking to add §§ 19.2-70.4 et seq. to the Virginia statutes). California law prohibits attempts to capture the image of a person "engaging in a personal or familial activity under circumstances in which the plaintiff had a reasonable expectation of privacy, through the use of a visual or auditory enhancing device, regardless of whether there is a physical trespass, if this image, sound recording, or other physical impression could not have been achieved without a trespass unless the visual or auditory enhancing device used was use of cameras to record a person." CAL. CIV. CODE. § 1708.8(b) (1999). A number of other states have similar laws, but "[o]verhelmingly, . . . this protection does not extend to the public space." Lance E. Rothenberg, *Re-Thinking Privacy: Peeping Toms, Video Voyeurs, and the Failure of Criminal Law to Recognize a Reasonable Expectation of Privacy in the Public Space*, 48 AM. U. L. REV. 1127, 1145 (2000).

Fourth Amendment.[105] But all courts that have considered application of the Fourth Amendment to cameras aimed at public streets or other areas frequented by a large number of people have declared that such surveillance is not a search, on the ground that any expectation of privacy one might have in these areas is unreasonable.[106] A few courts have noted that particularly intrusive public surveillance might implicate the Fourth Amendment, but all have shied away from so holding.[107] Similarly, some courts have held that Title III, which governs electronic eavesdropping, applies (with some modifications) to video surveillance of the home and similarly private locations,[108] but none has held that it also applies to surveillance of public activities.

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[105] *See, e.g.*, United States v. Mesa-Rincon, 911 F.2d 1433, 1437 (10th Cir. 1990)(holding "the general fourth amendment requirements are still applicable to video surveillance" of the home); Ricks v. State, 537 A.2d 612, 620 (Md. 1988)(discussing applicability of Fourth Amendment to video surveillance of the home). *Cf.* Kyllo v. United States, 533 U.S. 27 (2001)(holding that use of a thermal imaging device to discern the contents of the home is a Fourth Amendment search). *But see infra* text accompanying notes 233-34.

[106] *See, e.g.*, United States v. Jackson, 213 F.3 1269, 1281 (10th Cir. 2000)(covert video cameras on a telephone pole overlooking outside of defendants' residences); U.S. v. Reed, No. 99-16439, 2000 U.S. App. LEXIS 22684, *8 (9th Cir. 2000)(covert video of shared hallway of an apartment complex); United States v. McIver, 186 F.3d 1119 (9th Cir. 1999) (unmanned video in national forest); Rodriguez v. United States, 878 F.Supp. 20, 24 (S.D.N.Y.1995)(covert video surveillance of activities on public street); Vermont v. Costin, 720 A.2d 866, 867 (Vt. 1998)(covert video of private but unposted fields 150 yards from defendant's house); State v. Augafa, 992 P.2d 723, 732-33 (Haw. Ct. App. 1999)(video of defendant on public sidewalk using camera on a pole nearby); McCray v. State, 581 A.2d 45, 47-48 (Md. App. 1990)(covert video of defendant crossing the street). *See also*, Vega-Rodriguez v. Puerto Rico Tel. Co. 110 F.3d 174, 181 (1st Cir. 1997)(covert video of workers in an "open and undifferentiated work area"); Michigan v. Lynch, 179 Mich. App. 63, 445 N.W.2d 803 (1989)(covert video of common area of restroom); Young v. State, 849 P.2d 336, 340-42 (Nev. 1993)(covert video of doorless bathroom stall); Sponick v. City of Detroit Police Dept., 49 Mich.App. 162, 211 N.W.2d 674 (1973)(covert video of defendant talking in public bar); State v. Bailey, 2001 WL 1739445, *2-3 (Del. Super. Ct. 2001) (surveillance of commercial storage facility). Even video surveillance of the curtilage may not implicate the Fourth Amendment. *See* United States v. McMillon, 350 F. Supp 593 (D.D.C. 1972)(video of backyard not a search); People v. Wemette, 728 N.Y.S.2d 805, 805 (N.Y. App. Div. 2001) (videotaping defendant on his open front porch exposed to plain view of public did not infringe any reasonable expectation of privacy); State v. Holden, 964 P.2d 318, 320-22 (Utah Ct. App. 1998)(videotape of front yard from neighbor's window not a search). *But see* U.S. v. Cuevas-Sanchez, 821 F.2d 248 (5th Cir. 1986) (prolonged video surveillance of backyard is a search).

[107] *See, e.g.*, *Costin*, 720 A.2d at 870 ("this is not a case where video surveillance is aimed indiscriminately at public places and captures lawful activities of many citizens in the hope that it will deter crime or capture what crime might occur"); *Augafa*, 992 P.2d at 737 n.14 (after noting that the camera's zoom capaci-

It is worth noting that no court has considered a Fourth Amendment challenge to a CCTV *system*, and that most of the decisions holding that the Fourth Amendment does not apply to shorter-term, spot surveillance have involved covert, rather than overt, camera use.[109] But the bottom line is that legislatures have not enacted meaningful regulation of public video surveillance by the government, and the courts have been unwilling to nudge them in that direction. That should change.

II. THE RIGHT TO PUBLIC ANONYMITY

> Suppose that the local police in a particular jurisdiction were to decide to station a police car at the entrance to the parking lot of a well-patronized bar from 5:30 p.m. to 7:30 p.m. every business day for the purpose of making a list of the license plates of cars that were driven in and parked in the lot during that time. . . . If we assume that the bar has the necessary liquor license to sell drinks, that nothing more is known about the individuals patronizing the bar than that they happen to drive into its parking lot at this hour, and that there are no other special circumstances present, I would guess that the great majority of people who might have the question posed to them would say that this is not a proper police function. . . . [T]here would be an uneasiness, and I think a justified uneasiness, if those who patronized the bar felt that their names were being taken down and filed for future reference. . . . [T]his ought not to be a governmental function when the facts are as extreme as I put them.[110]

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ty probably did not play a major role in defendant's arrest, stating "there may be circumstances under which video camera surveillance, even in a public place, may constitute an unconstitutional intrusion violative of our state constitution's guarantee against unreasonable searches, seizures, and invasions of privacy.")

[108] *See, e.g.*, United States v. Torres, 751 F.2d 875 (7th Cir. 1984).

[109] *See* cases cited *supra* note 106.

[110] William H. Rehnquist, *Is An Expanded Right of Privacy Consistent with Fair and Effective Law Enforcement? Or: Privacy, You've Come a Long Way, Baby,*

These words were written by William Rehnquist, soon after he was appointed to the United States Supreme Court in 1972. He is right that overt police monitoring of the comings and goings of individuals for no apparent reason is not an appropriate government function; as he says later in his article, the "interest in not having public activities observed and recorded may prevail in the absence of any governmental justification for the surveillance."[111] The only thing wrong about the passage set out above is that the hypothesized facts are not "extreme." They describe a practice that would be quite feasible and even routine with any video surveillance system that openly records public activity.

Rehnquist also asserted that the individual interest involved in this situation, although deserving of protection, is not "privacy," because the observed action "is not intended to be concealed or confidential and is not in fact concealed or confidential."[112] It is true that *no particular trip* to the bar is concealed. But it is also true that those who make trips to the bar think that their observers either will not know or care who they are, or will be acquaintances or other bar patrons readily distinguishable from impersonal government observers bent on collecting information. Those who patronize bars or any other establishment both expect, and normally can count on, concealment from the latter type of observation. If the "uneasy" reaction to which Rehnquist refers is not based on a sense of privacy invasion, it stems from something very close to it–a sense that one has what I will call "a right to public anonymity."

Anonymity, literally, means nameless.[113] The right to public anonymity provides assurance that, when in public, one will remain nameless–unremarked, part of the undifferentiated crowd–as far as the government is concerned. The right is sur-

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23 KAN. L. REV. 1, 9 (1974).

[111] *Id.* at 14. Rehnquist also states, "I think almost all of us would regard this as simply not the kind of governmental interest that ought to rate high in a free society." *Id.* at 11.

[112] *Id.* at 9.

[113] WEBSTER'S NEW COLLEGIATE DICTIONARY 47 (1977)(defining anonymous as "having or giving no name").

rendered only when one does or says something that merits government attention, which most of the time must be something suggestive of criminal activity.[114]

The association of public anonymity with privacy is not new. In his seminal study of privacy, Peter Westin years ago described anonymity as a "state of privacy" that "occurs when the individual is in public places or performing public acts but still seeks, and finds, freedom from identification and surveillance."[115] Westin continued:

> He may be riding a subway, attending a ball game, or walking the streets; he is among people and knows that he is being observed; but unless he is a well-known celebrity, he does not expect to be personally identified and held to the full rules of behavior and role that would operate if he were known to those observing him. In this state the individual is able to merge into the "situational landscape."[116]

While most would probably agree with the intuitions of Rehnquist and Westin that we expect some degree of anonymity in public, the burden of this article is to establish a constitutional *right* to such anonymity. I will do so from three perspectives. First, I show how indiscriminate technological public surveillance seriously undermines the way we would like our society to function, because of its effect on public anonymity. Second, I argue that a number of constitutional principles, while not explicitly recognizing a right to public anonymity, provide solid groundwork for it. Finally, I report the results of an empirical study that suggests that American citizens feel public camera surveillance by the government is more intrusive than a variety of other police actions that the Supreme Court has labeled a "search" or "seizure," a finding that bolsters the case for folding the right to anonymity into the Fourth Amendment's protections.

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[114] The right might also give way to prevent harm to others that is not criminal (*e.g.*, an impending accident), or when a person needs medical attention, etc.

[115] ALLAN F. WESTIN, PRIVACY AND FREEDOM 31 (Bodley Mead 1967).

[116] *Id.*

A. *The Impact of Losing Public Anonymity*

Anonymity in public promotes freedom of action and an open society. Lack of public anonymity promotes conformity and an oppressive society. These sentences summarize the conclusions of a host of thinkers about public privacy.

1. The Panopticon Analogy

The antithesis of public anonymity is the Panopticon, a model prison first imagined by Jeremy Bentham.[117] The Panopticon is circular, with the prison cells and walkways placed around the perimeter and the guard station perched on top of a tower in the middle, an arrangement which enables a large number of prisoners to be watched by just a few guards.[118] In theory, every movement of every convict could be monitored in such a building.

But the genius of this construction is that the guards, who are hidden by venetian blinds, do not actually have to watch in order to enforce order. The mere knowledge that one *could* be observed converts every prisoner into his or her own warden. This latter observation is a key point of emphasis for Michel Foucault, the renowned philosopher and historian, who elaborated extensively on the modern implications of the Panopticon.[119] As he recognized, "[h]e who is subjected to a field of visibility, and who knows it, assumes responsibility for the constraints of power; . . . he becomes the principle of his own subjection."[120]

Of course, prisoners are subject to rigid rules of discipline, violation of which can result in serious punishment. "Self-subjection" might not work as well when those in charge of the surveillance do not have reprisal power analogous to prison officials. Foucault asserted, however, that modern society increasingly functions like a super Panopticon, one which "assures the automatic functioning of power," by rendering "its actual exercise unnecessary."[121] As both public and private entities pour more resources into methods of monitoring people and architecture that facilitates it, Foucault felt, ordinary citizens aware of this monitoring are likely to feel increasing pressure to conform to whatever norms the observers are perceived to endorse.[122]

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[117] *See* IV THE WORKS OF JEREMY BENTHAM 37-172 (John Bowring ed., 1962)(1838-43).

[118] *Id.* at 60-64.

[119] *See generally* MICHAEL FOUCAULT, DISCIPLINE AND PUNISH 195-229 (Alan Sheridan, trans., Vintage Books 2d ed. 1995)(1978)

[120] *Id.* at 202-03. *See also*, *id.* at 187 ("It is the fact of being constantly seen, of being able always to be seen, that maintains the disciplined individual in his subjection.").

For Foucault, this "panopticism" is not necessarily a bad thing. He described it as "a functional mechanism that . . . improve[s] the exercise of power by making it lighter, more rapid, more effective," than the older, balder ways of ensuring appropriate conduct.[123] Through the "subtle coercion" of panopticism, people can be led to be more productive, efficient members of society.[124] In the workplace, hospital or school, the types of situations Foucault had in mind, one can see some logic in this conclusion. In those locations, specific rules govern people's actions, rules that might be enforced most efficiently through surveillance.

To the extent such "subtle coercion" operates on those in the public byways, however, it can only do damage to cherished values. To see why, consider first Justice Douglas' comments in *Papachristou v. Jacksonville*[125] about public vitality in America:

> Walk[ing] and stroll[ing] and wander[ing] . . . are historically

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[121] *Id.* at 201.

[122] *See id.* at 170-176 (discussing how "the exercise of discipline presupposes a mechanism that coerces by means of observation" in military camps, hospitals, schools and workshops and factories); *id.* at 205 ("The Panopticon . . . must be understood as a generalizable model of functioning; a way of defining power relations in terms of the everyday life of men.").

[123] *Id.* at 209; *see also id.* at 202 (in a panoptic regime "it is not necessary to use force to constrain the convict to good behaviour, the madman to calm, the worker to work, the schoolboy to application, the patient to the observation of the regulations.").

[124] *Id.*

[125] 405 U.S. 156, 164 (1972).

> part of the amenities of life as we have known them. . . . These unwritten amenities have been in part responsible for giving our people the feeling of independence and self-confidence, the feeling of creativity. These amenities have dignified the right of dissent and have honored the right to be nonconformists and the right to defy submissiveness. They have encouraged lives of high spirits rather than hushed, suffocating silence.[126]

Quoting Walt Whitman and Henry David Thoreau, among others, Douglas painted a picture of a society that thrives on free-spiritedness in public.[127]

Now consider, in contrast, some of the effects that Foucault ascribes to the "discipline" that he says comes from panopticism. He tellingly calls this discipline "an anti-nomadic technique."[128] Because it inhibits behavior, it "arrests or regulates movements [and] dissipates compact groupings of individuals wandering about the country in unpredictable ways. . . . "[129] It also can "neutralize the effects of counter-power that spring from [the multiple organizations in society] and which form a resistance to the power that wishes to dominate it: agitations, revolts, spontaneous organizations, coalitions–anything that may establish horizontal conjunctions."[130] These effects are inconsistent, to put it mildly, with Douglas' vision of the conditions that a democratic, open society wants to nurture in its public spaces.

2. The Effects of Being Watched

How, more specifically, does panopticism undermine public openness? Foucault does not answer this question in detail. Others have, in ways that are directly relevant to public camera surveillance. Shoshana Zuboff writes about the phenomenon of "anticipatory conformity" among persons who believe they are being watched.[131] Similarly, philosopher Jeffrey Reiman states that "[w]hen you know you are being observed, you naturally identify with the outside observer's viewpoint, and add that alongside your own viewpoint on your action. This double vision makes your act different, whether the act is making love or taking a drive."[132] These observations suggest that any number of individuals–ranging from political demonstrators,[133] to couples-in-love and carefree teenagers[134]–could be inhibited by the knowledge their actions may be captured on camera.

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[126] *Papachristou*, 405 U.S. at 164.

[127] *Id.* at 164 (noting Whitman's "Song of the Open Road," Vachel Lindsay's "I Want to Go Wandering," and an excerpt from Henry David Thoreau about the "successful saunterer").

[128] Foucault, *supra* note 119, at 218.

[129] *Id.* at 219.

[130] *Id.*

"Double vision" is even more likely when the surveillance involves not just observation but recording of one's activities. For then, Professor Richard Wasserstrom notes, "[n]o matter how innocent one's intentions and actions at any given moment . . . persons would think more carefully before they did things that would become part of the record. Life would to this degree become less spontaneous and more measured."[135] As

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[131] SHOSHANA ZUBOFF, IN THE AGE OF THE SMART MACHINE: THE FUTURE OF WORK AND POWER 344- 45 (1988).

[132] Jeffrey H. Reiman, *Driving to the Panopticon: A Philosophical Exploration of the Risks to Privacy Posed by the Highway Technology of the Future*, 11 SANTA CLARA COMPUTER & HIGH TECH. L. J. 27, 38 (1995). Reiman goes on to say: "To the extent that a person experiences himself as subject to public observation, he naturally experiences himself as subject to public review. As a consequence, he will tend to act in ways that are publicly acceptable." *Id.* at 41.

[133] As Roger Clarke states, "[l]eaders of demonstrations in the future should expect . . . their locations to be transparent to the police." Roger Clarke, *While You Were Sleeping . . . Surveillance Technologies Arrived*, 73 AUSTRALIAN QUARTERLY 1 (2001), *available at* http://www.anu.edu.au/people/Roger.Clarke/DV/AQ2001.html.

[134] These latter kinds of activities are apparently routinely spied upon by camera operators. *See* DeGregory, *supra* note 28, at 1D (quoting camera operator as saying, "I've seen it all. Some things are really funny, like the way people dance when they think no one's looking. Others, you wouldn't want to watch."); NORRIS & ARMSTRONG, *supra* note 44, at 129 ("10 percent of all targeted surveillances on women, and 15 percent of operator-initiated surveillance were for apparently voyeuristic reasons, outnumbering protective surveillance by five to one."); *see also*, *id.* at 130 ("The 'appreciation' of such public displays [of sex in cars] was a regular feature of the night shift in one of our suites and not just confined to those with access to the monitors. Many such encounters could be found on the 'shaggers alley greatest hits tape' which was compiled and replayed for the benefit of those who missed the 'entertainment.'").

[135] Richard Wasserstrom, *Privacy: Some Arguments and Assumptions*, *in*

Professor Daniel Solove has noted, the behavioral impact of surveillance is heightened by the reasonable surmise that one's recorded actions are easily susceptible to aggregation and use by a faceless bureaucracy.[136] Professor Nicolas Burbules similarly notes that "[a]s people accept the inevitability of being observed and recorded, their habits change; they change." He goes on to assert that these changes are even more pervasive than we might think, because "people carry many of the attitudes and self-imposed restrictions of activity from the surveyed public into their private life."[137]

The stultifying effect of public surveillance has been noted by many others.[138] But spontaneity is not all that could be hindered by routine public surveillance. Richard McAdams notes, "[t]he problem drinker who goes to an Alcoholics Anonymous meeting, the patient who drives to his psychiatrist's office, the homosexual who visits a gay bar, the spouse who has a

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PHILOSOPHICAL DIMENSIONS OF PRIVACY 325-26 (Ferdinand David Schoeman, ed., Cambridge Univ. Press 1984); *cf.* United States v. White, 401 U.S. 745, 788 (1971)(Harlan, J., dissenting)("Authority is hardly required to support the proposition that words would be measured a good deal more carefully and communication inhibited if one suspected his conversations were being transmitted and transcribed. Were third-party bugging a prevalent practice, it might well smother that spontaneity–reflected in frivolous, impetuous, sacrilegious, and defiant discourse–that liberates daily life.").

[136] See Daniel J. Solove, *Conceptualizing Privacy*, 90 CAL. L. REV. 1087, 1154 (2002) ("What makes this problem [of information collection through surveillance] significant is the fact that this information is aggregated, that it can be used to make important decisions about people's lives, that it is often subjected to a bureaucratic process lacking much discipline and control, and that the individual has scant knowledge of how the information is processed and used.").

[137] Nicholas C. Burbules, *Privacy, Surveillance, and Classroom Communication on the Internet*, *available at* http://faculty.ed.uiuc.edu/burbules/ncb/papers/privacy.html (last visited Oct. 25, 2002).

[138] *See, e.g.*, ANITA ALLEN, UNEASY ACCESS: PRIVACY FOR WOMEN IN A FREE SOCIETY 124 (1988)(stating that public "anonymity is wrongfully disturbed if uninvited attention is paid or drawn to another person without justification," because that disturbance "impedes individual tasks and purposes"); Stanley I. Benn, *Privacy, Freedom, and Respect for Persons*, *in* NOMOS XIII: PRIVACY 26 (J. Ronald Pennock & J.W. Chapman eds., 1971) (The observed "becomes aware of himself as an object, knowable, having a determinate character [and] is fixed as *something*–with limited probabilities rather than infinite, indeterminate possibilities."); *cf.*, LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE 152-53 (1999) ("Privacy, or the ability to control data about yourself . . . disables the power of one dominant community to norm others into oblivion").

rendezvous with another lover, the teenager or adult who skips school or work to go fishing, would all be exposed if someone constantly tracked their public movements."[139] The practice of seeking secret solace in parks and other public places may also be circumscribed.[140] None of these activities are illegal, but it is easy to imagine why those who engage in them might want to keep them secret.

In addition to its effect on behavior, CCTV might trigger a number of unsettling emotional consequences. Relying on the work of Erving Goffman, Jeffrey Rosen notes that "it's considered rude to stare at strangers whom you encounter in public."[141] Staring, whether it occurs on an elevator, on public transportation or on the street, violates the rules of "civil inattention."[142] The cyclopian gaze of the camera eye may be equally disquieting, and perhaps more so given the anonymity of the viewer and the unavailability of normal countermeasures, such as staring back or requesting the starer to stop.

The small amount of social science research specifically aimed at assessing the impact of concerted surveillance tends to verify that these and other psychological and behavioral effects can occur. For instance, empirical investigations of the workplace–one of the contexts Foucault thought might benefit from panopticism–indicate that even there surveillance has a downside. Monitored employees are likely to feel less trusted, less motivated, less loyal, and more stressed than employees who are not subject to surveillance.[143] Whether these findings would be duplicated in the public surveillance context is not clear.[144] But one could plausibly infer from them that citizens on the street who are subject to camera surveillance might experience less confidence in their overall freedom to act, as well as somewhat diminished loyalty to a government that must watch its citizens' every public movement. Roger Clarke also calls attention to the latter possibility in his study of the effects of widespread surveillance. Among the many consequences of "dataveillance," as he calls it, are a prevailing climate of suspicion, an increase in adversarial relationships between citizens and government, and an increased tendency to opt out of the official level of society.[145]

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[139] Richard H. McAdams, *Tying Privacy In Knotts: Beeper Monitoring and Collective Fourth Amendment Rights,* 71 VA. L. REV. 297, 322 (1985).

[140] Disa Sim, *The Right to Solitude in the United States and Singapore: A Call for a Fundamental Reordering*, 22 LOYOLA L.A. ENT. L. REV. 443, 468 (2002)(noting that "[i]n a crowded society, we are often driven to find peace and solace in public parks, pubs, and other public places," and asserting that this practice would be inhibited by wide-open public photography).

[141] JEFFREY ROSEN, THE UNWANTED GAZE: THE VIOLATION OF OUR PRIVACY 16 (2000)(citing ERVING GOFFMAN, BEHAVIOR IN PUBLIC PLACES: NOTES ON THE SOCIAL ORGANIZATION OF GATHERINGS 84-85, 116 (1963)).

[142] *Id.*

[143] The best research in this regard comes from Carl Botan. In one study, based on the responses of 465 workers in the communications industry, he found that "[e]mployees who are surveilled . . . experience several panoptic effects, including a reduced sense of privacy, increased uncertainty [as to job security], and

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reduced communication." Carl Botan, *Communication Work and Electronic Surveillance: A Model for Predicting Panoptic Effects*, 63 COMM. MONOGRAPHS 293, 308-09 (1996). The main conclusions of a second study based on the same survey results, conducted with Professor Vorvoreanu, were as follows:

> [T]he overwhelming meta-message that surveillance seems to send to employees is that they are distrusted. . . . In a closely related interpretation, many employees see surveillance as setting someone, possibly themselves, up for dismissal or discipline. . . . Many subjects also perceive surveillance as implying that management feels they deserve to be treated as children, . . . and heavily surveilled employees reported reduced motivation to do more quantity of work . . . and reduced motivation to do higher quality work . . . . Finally, heavily surveilled subjects reported reduced loyalty to the organization, increased stress at work, and reduced enthusiasm about even going to work, all of which are supported by qualitative comments . . . .

Carl Botan & Mihaela Vorvoreanu, "What Are You Really Saying to Me?" Electronic Surveillance in the Workplace (June 2000)(unpublished manuscript, on file with author).

[144] Surveys asking what people think of CCTV routinely produce overwhelmingly positive results. *See infra* note 264-65 and accompanying text. But no survey, outside of the one reported here, *see infra* text accompanying notes 272-84, has focused on CCTV's panoptic effects (and even the study reported here does so only indirectly). Further, the way survey questions about CCTV have been framed apparently distorts the results obtained. *See* Jason Ditton, *Public Support for Town Centre CCTV Schemes: Myth or Reality?*, *in* SURVEILLANCE, CLOSED CIRCUIT TELEVISION AND SOCIAL CONTROL, *supra* note 73, at 227 (finding that positive question-framing increased CCTV's acceptance by 20%, and that if that proportion were subtracted from the 69% positive response in previous professional surveys, "we have a minority–albeit a very large minority–but only a minority finding open street city centre CCTV acceptable.").

[145] Roger Clarke, *Information Technology and Dataveillance*, 31 COMM. ACM 498 (May 1988) *available at* http:// www.anu.edu.au/people/Roger.Clarke/DV/ CACM88.html).

To capture the core of these disparate observations, consider again Rehnquist's bar example. The people entering the bar will feel less trusted, and more anxious, and may even stop going there. Or try another simple thought experiment. Virtually all of us, no matter how innocent, feel somewhat unnerved when a police car pulls up behind us. Imagine now being watched by an officer, at a discreet distance and without any other intrusion, every time you walk through certain streets. Say you want to run (to catch a bus, for a brief bit of exercise or just for the hell of it). Will you? Or assume you want to obscure your face (because of the wind or a desire to avoid being seen by an officious acquaintance)? How about hanging out on the street corner (waiting for friends or because you have nothing else to do)?

In all of these scenarios, you will probably feel and perhaps act differently than when the officer is not there. Perhaps your hesitancy comes from uncertainty as to the officer's likely reaction or simply from a desire to appear completely law-abiding; the important point is that it exists. Government-run cameras are a less tangible presence than the ubiquitous cop, but better at recording your actions. A police officer in Liverpool, England may have said it best: A camera is like having a cop "on duty 24 hours a day, constantly taking notes."[146]

3. The Government's Use of Surveillance

All of these inhibitory consequences can be produced simply by setting up a camera system. If the government acts on what the camera sees, those effects can be significantly enhanced. Of course, that is all to the good if the result is prevention of serious criminal behavior. But sometimes government uses surveillance to achieve more ambiguous ends. Many of the crimes "solved" through CCTV in England are very minor offenses that are highly subject to discriminatory prosecution, such as littering, urinating in public, traffic violations, drunkenness, loitering, failing to pay parking meters and even underage smoking.[147] Indeed, camera use in publicly accessible malls in that country triggers law enforcement interventions even when there is *no* infraction of the criminal law; rather, the decision is often based on "commercial considerations" that characterize certain people (beggars, buskers, and groups of youth) as "flawed consumers."[148] Research suggests that, in other public areas as well, the impact of surveillance tends to be the straightforward exclusion of disfavored groups rather than apprehension or deterrence of criminals.[149]

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[146] Quoted in *News*, CCTV TODAY, May, 1995, at 4.

[147] Simon Davies, *Welcome Home Big Brother*, WIRED, May, 1995, at 58-62,

Thus, Professor Jeffrey Rosen concludes, CCTV's primary use in Great Britain today is not to thwart serious crime but "to enforce social conformity."[150] One consequence, he reports, is that the cameras are "far less popular among black men than among British men as a whole."[151] That should be no surprise to those familiar with the American experience with loitering laws, stop and frisk practices, and "aggressive patrolling."[152] Others view CCTV as one of the most powerful forces

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cited in Graham, *supra* note 77, at 101.

[148] Michael McCahill, The Surveillance Web: The Rise and Extent of Visual Surveillance in a Northern City (unpublished Ph.D. thesis, Hull University), *cited in* Norris, *supra* note 40, at 28 (using this term); *see also* Alice Wakefield, *Situational Crime Prevention in Mass Private Property*, *in* ETHICAL AND SOCIAL PERSPECTIVES ON SITUATIONAL CRIME PREVENTION 125, 133 (Andrew von Hirsch et al. eds., 2000)(reporting 578 persons excluded from shopping and arts centers during a five-week period as a result of CCTV-based security system).

[149] *See* Alan Reeve, *The Panopticisation of Shopping: CCTV and Leisure Consumption*, *in* SURVEILLANCE, CLOSED CIRCUIT TELEVISION AND LOCAL CONTROL, *supra* note 73, at 78 (reporting that town center managers wanted to use CCTV primarily to discourage "anti-consumer" people and activities from entering the center, and that a quarter wanted to exclude political gatherings, youth who want to "hang out" and beggars); Roy Coleman & Joe Sim, *"You'll Never Walk Alone": CCTV Surveillance, Order and Neo-Liberal Rule in Liverpool City Centre*, 51 BRIT. J. SOC. 623 (2000)(reporting a study leading the authors to conclude that "[t]he activities targeted, the gathering of intelligence and its dissemination is focused on recurring categories: youth, 'known and potential' shoplifters, the homeless and licensed and unlicensed street traders."); Liberty: Who's Watching You? Video Surveillance in Public Places 1 (London Briefing Paper No. 16, 1989)(on file with author)(asserting that cameras are designed to deter "large groups, usually young single people [whose] mere presence is a nuisance to people who want to use the streets and shopping centres in more conventional ways.").

[150] Jeffrey Rosen, *A Watchful State*, N.Y. TIMES MAG., Oct. 7, 2001, at 38.

[151] *Id. See also*, Taylor, *supra* note 48, at ¶ 31 (reporting that soon after installation of cameras in Newcastle local residents attacked the community center, in the belief it housed the camera monitoring room).

[152] *See generally* Dorothy E. Roberts, *Foreword: Race, Vagueness, and the So-*

pushing toward the "purification" of city spaces and their destruction as a stage for the "celebration of difference" and disorder.[153] The end result of all of this is that public spaces are becoming less public.[154]

Automated systems that do not depend on human operators have been hailed as a method of avoiding these biases.[155] But they do not necessarily eliminate racist and other undesirable tendencies, since discretion is still exercised once the alarm is triggered. Facial recognition systems that are based simply on whether a person has previously been labeled a "shoplifter" or "car thief" (sometimes erroneously[156]) are likely to exacerbate these tendencies. If one tries to remove the impact of human flaws through full automation (as with the motion detection systems described earlier), the result is even more alarming. Such systems are based on rigid categorizations of behavior. As Norris notes, "they utilize no other logic than

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cial Meaning of Order-Maintenance Policy, 89 J. CRIM. L. & CRIMINOLOGY 775 (1999)(exploring how order maintenance policies reinforce and are reinforced by preconceived notions of African-American criminality).

[153] Jon Bannister et al., *Closed Circuit Television and the City*, *in* SURVEILLANCE, CLOSED CIRCUIT TELEVISION AND LOCAL CONTROL, *supra* note 73, at 24-32. These authors conclude that CCTV "as an urban management tool . . . is part of the wider urban malaise."

> By employing such techniques, by closing ourselves to difference, we run the unintended and perverse risk of further weakening our capacity to manage difference. Difference becomes even more threatening. Public sociability is weakened. Spaces become the responsibility of urban managers, order becomes a good to be accessed through consumption.

Id. at 36.

[154] Taylor, *supra* note 48, at ¶ 23 ("Shopping malls and city centres are becoming increasingly purified and privatised to the extent that the limits of acceptable behaviour are being driven by the forces of consumerism. Public spaces are becoming increasingly less public.")

[155] Michalis Lianos & Mary Douglas, *Dangerization and the End of Deviance: The Institutional Environment*, 40 BRIT. J. CRIMINOLOGY. 261, 266 (2000)("It is the first time in history that we have the opportunity to experience forms of control that do not take into account any category of social division. . . . [A]utomated environments . . . cannot discriminate among users on other grounds than their quality as users.").

[156] Amy Herdy, *They Made Me Feel Like a Criminal*, ST. PETERSBURG TIMES, Aug. 8, 2001, at 1B (recounting story of police confronting a man erroneously identified by Tampa's facial recognition system as someone wanted for child abuse).

whatever is programmed into their software, and the end point of such processing is the creation of a binary system of classification: access is either accepted or denied; identity is either confirmed or rejected; behavior is either legitimate or illegitimate."[157]

The implications of these various considerations should not be overstated. Contrary to the dire predictions of some privacy advocates, the potential effects of public surveillance are not Orwellian in magnitude. A principal feature of the society depicted in George Orwell's novel *1984* was the ever-present "telescreen" that relayed citizens' words and conduct back to an omniscient "ministry."[158] But the dread that was rampant in Orwell's fictional Oceania resulted primarily from the perception that the government was obsessed with severely punishing amorphously defined "thoughtcrimes" and "facecrimes," often with death.[159] In the real world today, in contrast, the norms likely to assume importance because of camera surveillance (aside from standard criminal prohibitions), come from the conscience of the mainstream and the business class, the imagination of pedestrians and the calculations of technicians, and they are more likely to result in exclusion from certain areas than any significant formal punishment.

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[157] Norris, *supra* note 40, at 40-41.

[158] *See, e.g.*, Orwell, *supra* note 3, at 6-7 (the telescreen "could be dimmed, but there was no way of shutting it off completely. . . . [It] received and transmitted simultaneously. . . . You had to live–did live, from habit that became instinct–in the assumption that every sound you made was overheard, and, except in darkness, every movement scrutinized."). Harry Strub, *The Theory of Panoptical Control: Bentham's Panopticon and Orwell's Nineteen Eighty-Four*, 25 J. HIST. BEH. SCI. 40, 44 (1989)("The telescreen . . . provided a nearly continuous, permanent record of virtually all of an individual's actions, however trivial, and thereby represents the consummation of the panoptical ideal of being able to observe everything.").

[159] *See, e.g.*, Orwell, *supra* note 3, at 19-20:

> Whether he wrote DOWN WITH BIG BROTHER, or whether he refrained from writing it, made no difference . . . The Thought Police would get him just the same. . . . Thoughtcrime, they called it. Thought-crime was not a thing that could be concealed forever. . . . In the vast majority of cases there was no trial, no report of the arrest. People simply disappeared, always during the night. . . . You were abolished, annihilated: *vaporized* was the usual word.

See also, Strub, *supra* note 158, at 44 ("In [the telescreen's] all-seeing function, it was vastly more sensitive, surpassing the Panopticon's potential of achieving power over minds: one was aware that even the presence of a forbidden thought ("thoughtcrime") was detectable, betraying the individual by a small gesture or grimace ("facecrime"), or by more minute emotional signals of guilt such as respiratory and heartbeat changes.").

At the same time, in a society that wants to promote freedom of action, camera surveillance–more specifically, concerted, overt public surveillance using cameras with recording capacity–is clearly not an unalloyed good, even if it does significantly reduce crime. People who know they are under government surveillance will act less spontaneously, more deliberately, less individualistically, and more conventionally; conduct on the streets that is outside the mainstream, susceptible to suspicious interpretation, or merely conspicuous–even if perfectly harmless–will diminish and perhaps even be officially squelched. Some people subject to public camera surveillance, perhaps in particular those from minority groups, will feel significant anxiety and discomfort although innocent of any crime, and some may react with disdain for government, again despite and probably because of their innocence.[160] Public camera surveillance undermines an open society because it circumscribes unordinary behavior and makes everyone–including the ordinary–more conscious of the government's presence, at least until behavior is suitably conformed and the cameras can be forgotten.[161] In short, CCTV accelerates the "disappearance of disappearance."[162]

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[160] In an ideal world, perhaps, people would not succumb to these underenforced norms, implemented solely through the process of being watched and recorded. But, Professor Reiman notes, "[e]ven if people should ideally be able to withstand social pressure in the form of stigmatization or ostracism, it remains unjust that they should suffer these painful fates simply for acting in unpopular or unconventional ways." Reiman, *supra* note 132, at 36.

[161] Foucault's writings predict this result. The cameras will affect our behavior and attitudes, and then both their effect and their existence will fade from our consciousness. We would be changed without realizing how or why. See Burbules, *supra* note 137 (noting that, consistent with Foucault's thesis, "few people even notice any longer how frequently they are monitored through partially hidden video cameras," despite the fact that this surveillance inhibits "all sorts of activities–and not only illegal activities").

[162] Kevin D. Haggerty & Richard V. Ericson, *The Surveillant Assemblage*, 51 BRIT J. SOC. 605, 619 (2000)("The coalescence of [data collection] practices into the surveillant assemblage marks the progressive 'disappearance of

B. The Constitution and Public Camera Surveillance

Do the potential effects of public camera surveillance on public anonymity raise constitutional concerns, or are they merely subconstitutional matters that policymakers can take into account, or dismiss, at their discretion? Camera surveillance is certainly not as physically intrusive as an arrest or stop, or as invasive as a search of houses or belongings, the paradigmatic government actions addressed by the Fourth Amendment. But its aggregate impact can be equally significant, because it affects a much larger number of people. It also evokes a particularly powerful image, a panoptic approach to government interaction with its citizens that involves observing, recording, and categorizing every movement in public.

As Lawrence Tribe has emphasized, the Constitution should be interpreted with the "constitutive dimension of government action" in mind.[163] We should think about the issues raised by public camera surveillance "in terms of what they *say* about who and what we are as a people and how they help to constitute us as a nation."[164] As it turns out, not just the Fourth Amendment but a number of other provisions in the Constitution are relevant to that endeavor.

1. Freedom of Speech and Association

The First Amendment guarantees freedom of speech and association.[165] Recall Justice Douglas' words in *Papachristou* linking wandering and strolling with the right to dissent, nonconformity, and defiance of submissiveness.[166] Building on that language, one might argue for a First Amendment right to be free of the inhibiting effects of camera surveillance in public

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disappearance'–a process whereby it is increasingly difficult for individuals to maintain their anonymity, or to escape the monitoring of social institutions.").

[163] Lawrence Tribe, *Seven Deadly Sins of Straining the Constitution Through a Pseudo-Scientific Sieve*, 36 HASTINGS L.J. 155, 165 (1984).

[164] *Id.*

[165] U.S CONST. amend. I ("Congress shall make no law . . . abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble . . . ").

[166] *See supra* text accompanying notes 125-27.

unless the government can proffer some justification for it.

Under the Supreme Court's caselaw, however, neither the speech or association guaranties are likely to provide a basis for constitutional regulation of most public surveillance, at least when it is visual only.[167] While conduct alone can be expressive, the type of conduct normally captured by cameras apparently does not fit in this category. As the Court stated in *City of Dallas v. Stanglin*, "[i]t is possible to find some kernel of expression in almost every activity a person undertakes–for example, walking down the street, or meeting one's friends at a shopping mall–but such a kernel is not sufficient to bring the activity within the protection of the First Amendment."[168] Similarly, government inhibition of association is generally not a violation of the First Amendment unless the group is engaged in some type of speech activity.[169]

However, if public conduct *is* expressive–for instance, a speech at a park rally–and public associations *are* speech-related–such as joining the rally–then the First Amendment should be implicated by camera surveillance. That is because, as the previous section suggested, such surveillance can chill conduct, even though it takes place in public and is meant to be seen by others.

Admittedly, the Supreme Court rejected a similar claim in *Laird v. Tatum*.[170] There the plaintiffs contended that their antiwar activities were inhibited by knowledge that the Army was constructing dossiers on those involved, allegedly as a means of averting potential civil disorder. Construing the question to be "whether the jurisdiction of a federal court may be invoked by a complainant who alleges that the exercise of his First Amendment rights is being chilled by the mere existence, without more, of a governmental investigative and data-gathering activity that is alleged to be broader in scope than is reasonably necessary for the accomplishment of a valid governmental purpose,"[171] the Court dismissed the case. According to the five-member majority, the plaintiffs had no standing because they failed to allege any specific, foreseeable harm, other than an inchoate fear that the information would somehow be used against them.[172]

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[167] If cameras are equipped with parabolic audio capacity, so that they can pick up "private" conversations on the street, their use would probably require a warrant under both the Fourth Amendment, *see infra* note 280 and accompanying text, and Title III, *see* 18 U.S.C. § 2510(2)(2002)(protecting oral communications "by a person exhibiting an expectation that such communication is not subject to interception under circumstances justifying such expectation"). If audio recording capacity were used openly, Title III might not be violated, but the types of arguments made below concerning the "chilling" effect of surveillance would be apposite.

[168] City of Dallas v. Stanglin, 490 U.S. 19, 25 (1989).

[169] *Stanglin*, 490 U.S. at 25 ("we do not think the Constitution recognizes a generalized right of 'social association' that includes chance encounters in dance halls. . . . . *Griswold* [*v. Connecticut*, 381 U.S. 479 (1965)] . . . recognizes nothing more than that the right of expressive association extends to groups organized to engage in speech that does not pertain directly to politics.").

[170] 408 U. S. 1 (1972).

The Court has since indicated, however, that a government action the sole effect of which is to chill speech is justiciable under some circumstances.[173] *Tatum* thus does not necessarily foreclose a First Amendment argument against camera surveillance. The latter method of data collection is quite different from the government's efforts in *Tatum*. Most of the "surveillance" in *Tatum* consisted of perusing published material and public records, and the rest involved undercover agents who attended meetings;[174] furthermore, the plaintiffs in *Tatum* alleged no specific acts by the Army against them,[175] and may not have been "chilled" in any event.[176] In short, *Tatum* did not involve overt surveillance. The conspicuous presence of cameras aimed at participants engaging in First Amendment activity, in contrast, is closer to the type of "present[] . . . compulsion[]"[177] directed at speech that has concerned the Court in cases where it has found violations of the First Amendment.[178] Although many lower courts have nonetheless been hostile to First Amendment claims directed at camera surveillance (at least when it consists solely of photography),[179] several have upheld standing claims when such surveillance targets individuals, intimidates them, or causes a fall-off in attendance or membership,[180] or when the results of the

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[171] *Tatum*, 408 U.S. at 10.

[172] *Id.* at 13-14 ("Allegations of a subjective 'chill' are not an adequate substitute for a claim of specific present objective harm or a threat of specific future harm").

[173] Meese v. Keene, 481 U.S. 465, 478 (1987)(finding standing to argue that government labeling of a film as propaganda chilled the showing of the films, but ultimately finding no First Amendment violation because the labeling "neither prohibits nor censors the dissemination of advocacy materials").

[174] *Tatum*, 408 U.S. at 6.

[175] *Id.* at 9 (Respondents "freely admit that they complain of no specific action of the Army against them. . . . So far as is yet shown, the information gathered is nothing more than a good newspaper reporter would be able to gather by attendance at public meetings and the clipping of articles from publications available on any newsstand.")

[176] *Id.* at 13-14 n.7 ("[R]espondents . . . have also cast considerable doubt on whether they themselves are in fact suffering from any . . . chill. . . . [I]f respondents themselves are not chilled, . . . respondents clearly lack that 'personal stake in the outcome of the controversy' essential to standing.").

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[177] *Id.* at 11.

[178] For instance, in *Lamont v. Postmaster General*, 381 U.S. 301 (1965), the Court struck down a government regulation requiring individuals to make a special written request to the Post Office for delivery of mail containing communist literature. According to a unanimous Court, under such a regulation,

> any addressee is likely to feel some inhibition in sending for literature which federal officials have condemned as "communist political propaganda." The regime of this Act is at war with the "uninhibited, robust, and wide-open" debate and discussion that are contemplated by the First Amendment.

Lamont, 381 U.S. at 307; *see also* Bantam Books, Inc. v. Sullivan, 372 U.S. 58 (1963)(finding the First Amendment violated when the city government sent letters that identified certain books as "objectionable," stated it would turn its list of distributors of those books over to police, and sometimes sent police officers to see whether distributors took any action with respect to the books). In both *Lamont* and *Bantam Books* the First Amendment wrong was the government's suggestion that the speech activity was inappropriate. In the absence of any other justification (such as public safety), the presence of government-run cameras at a political event strongly suggests that the government dislikes the message being transmitted, and will likely inhibit those involved in the observed activity. *See supra* notes 125-29 & 133 and *infra* note 180.

[179] *See, e.g.* Donohoe v. Duling, 465 F.2d 196 (4th Cir. 1972) (finding no justifiable controversy where police conducted surveillance of demonstrations and public vigils and photographed demonstrators); Phila. Yearly Meeting of the Religious Society of Friends v. Tate, 519 F.2d 1335, 1337-38 (3d Cir. 1975)(no justiciable controversy where police photographed public meetings and disseminated information to other law enforcement agencies).

[180] *See* Presbyterian Church (U.S.A.) v. United States, 870 F.2d 518 (9th Cir. 1989) (distinguishing *Tatum* because church suffered diminished membership as a result of surveillance); Olagues v. Russoniello, 797 F.2d 1511 (9th Cir. 1986)(distinguishing *Tatum* because plaintiffs here were targets of surveillance); *cf.*, U.S. v. Montemarano, 1987 WL 13729 (S.D.N.Y. 1987), where the court stated:

> It should be noted that the intrusion upon the spiritual and psychological

surveillance are released to non-law enforcement entities.[181]

The chilling phenomenon has also long been recognized in other settings, particularly in labor cases involving suits under the National Labor Relations Act (NLRA) against employers who have photographed or videotaped employees engaging in authorized strikes and demonstrations. In *F.W. Woolworth Co.*,[182] a representative example, the National Labor Relations Board concluded that "absent proper justification, the photographing of employees engaged in protected concerted activities violates [rules under the NLRA against employer actions that have a "tendency to coerce"] because it has a tendency to intimidate."[183] More so than mere observation, "pictorial recordkeeping tends to create fear among employees of future reprisals."[184]

As this last statement indicates, these holdings are bound up with the notion that employers have power over the employees. But that fact does not distinguish the labor cases from the public surveillance context. By definition, employer reprisals against those who engage in "protected concerted activities" are prohibited; yet the law recognizes that, regardless of "actual impact," photography can have an intimidating effect on employees so engaged. The same is true of speech and association in public. These are protected activities that should not result in government reprisal. But, understandably, people might not believe that is so when they know or think government cameras will be trained on them if they participate: If the activities are protected, why does the government need cameras?[185]

> milieu preceding or following the services was minimized by the lack of a discernible law enforcement presence, the photographs having been taken from a concealed location. This is not a situation where uniformed government personnel impliedly, or expressly, menaced churchgoers.

Id. at *1.

[181] *Tate*, *supra* note 179, at 1338.

[182] 310 N.L.R.B. 1197 (1993).

[183] *Woolworth*, 310 N.L.R.B. at 1197.

[184] *Id. See also*, Nat'l Steel v. N.L.R.B., 156 F.3d 1268 (D.C. Cir. 1998); Road Sprinkler Fitters Local Union No. 669 v. N.L.R.B., 681 F.2d 11, 19 (D.C. Cir. 1982)(citing cases); Waco, Inc., 273 N.L.R.B. 746, 747 (1984).

[185] David Feldman, *Secrecy, Dignity or Autonomy? Views of Privacy as Civil Liberty*, 41 C.L.P. 41, 61 (1994)(overt surveillance "carries with it a clearly im-

A second way in which public camera surveillance trenches on First Amendment rights of speech and association is its facilitation of the government's ability to pierce the anonymity of those engaging in expressive conduct. The Court has declared that, absent a significant government justification, a person who writes a pamphlet[186] or is involved in collecting signatures for a petition[187] cannot be required to reveal his or her name. It has also held that membership lists of organizations need not be revealed.[188] As Justice Stevens stated in *McIntyre v. Ohio Elections Commission*,[189] whether "[t]he decision in favor of anonymity [is] motivated by fear of economic or official retaliation, by concern about social ostracism, or merely by a desire to preserve as much of one's privacy as possible . . . [it] is an aspect of freedom of speech protected by the First Amendment."[190]

People who engage in expressive conduct in public know they will be observed. But they may choose, like the pamphleteer or the petitioner, not to reveal their identity, for all sorts of reasons. Camera surveillance virtually nullifies that effort. Because the camera's recorded images are far better than an informer's memory, it vastly improves government efforts to link visages with names. Furthermore, as one commentator points out, "surveillance of a person's movements could, over

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plied threat that the fruits of the surveillance may be used for purposes adverse to the interests of the person being watched. This is calculated to undermine people's commitment to their own plans and values.").

[186] Talley v. California, 362 U.S. 60, 64 (1960)(striking down a ban on anonymous handbills, noting that "[p]ersecuted groups and sects from time to time throughout history have been able to criticize oppressive practices and laws either anonymously or not at all.")

[187] Buckley v. Am. Constitutional Law Found., 525 U.S. 182, 200 (1999) (holding that Colorado's requirement requiring petition solicitors to wear an identification badge "discourages participation in the petition circulation process by forcing name identification without sufficient cause.").

[188] NAACP v. Alabama ex. Rel Patterson, 357 U.S. 449, 462 (1958)("It is hardly a novel perception that "compelled disclosure of affiliation with groups engaged in advocacy may constitute [an] effective . . . restraint on freedom of association."); *see also*, Shelton v. Tucker, 364 U.S. 479, 490 (1960)(prohibiting compelling teachers to disclose group memberships).

[189] 514 U.S. 334 (1995).

[190] *McIntyre*, 514 U.S. at 341-42.

time, reveal associational tendencies as thoroughly as a membership list."[191] These facts can only inhibit the public conduct of those who want to remain anonymous.

There is little doubt that public camera surveillance can infringe First Amendment values. When those values are implicated, government should have to justify the presence of the cameras on a meaningful law enforcement ground; even those cases that reject First Amendment arguments against camera surveillance seem to find the existence of a legitimate government objective important.[192] Again, however, that conclusion only provides constitutional protection for expressive conduct, a category that the Court has defined rather narrowly. Other caselaw broadens that protection considerably.

2. Freedom of Movement and Repose

Derived from the Due Process Clause, the right to travel is another fundamental right that might be compromised by public camera surveillance. As far back as the turn of the twentieth century, the Supreme Court stated: "Undoubtedly the right of locomotion, the right to remove from one place to another according to inclination, is an attribute of personal liberty, and the right, ordinarily, of free transit from or through the territory of any state is a right secured by the 14th Amendment and by other provisions of the Constitution."[193] This sentiment was echoed over a half century later in *Kent v. Dulles*,[194] a case that dealt with restrictions on travel overseas but uses language relevant to domestic travel as well:

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[191] McAdams, *supra* note 139, at 322.

[192] Reporters Comm. for Freedom of the Press v. A.T.T., 593 F.2d 1030 (D.C. Cir. 1978)("[P]hysical surveillance consistent with Fourth Amendment protections and *in connection with a bona fide law enforcement investigation* does not violate First Amendment rights, even though it may be directed at communicative or associational activities, and even though it may inhibit those activities.")(emphasis added); *see also* Grayned v. City of Rockfort, 408 U.S. 104, 115 (1972) ("the right to use a public place for expressive activity may be restricted only for weighty reasons"); Alliance to End Repression v. Chicago, 627 F. Supp. 1044, 1056 (1985)("Without any reasonable suspicion of criminal conduct, the court cannot conceive of any remotely compelling interest the City has in recording which political activities an individual chooses to involve herself in . . .").

[193] Williams v. Fears, 179 U.S. 270, 274 (1909).

[194] 357 U.S. 116 (1958).

> Freedom of movement across frontiers in either direction, and inside frontiers as well, was a part of our heritage. Travel abroad, like travel within the country, may be necessary for a livelihood. It may be as close to the heart of the individual as the choice of what he eats, or wears, or reads. Freedom of movement is basic in our scheme of values. . . . [O]utside areas of plainly harmful conduct, every American is left to shape his own life as he thinks best, do what he pleases, go where he pleases.[195]

As this language suggests, the "right of locomotion" is not limited to expressive actions.[196] In contrast to the First Amendment, this right is important for economic and social reasons as well as political ones. The *Kent* Court went on the state explicitly that "[f]reedom of movement also has large social values," including support of activities "close to the core of personal life [such as] spending hours with old friends."[197] The right to travel was recently reaffirmed as a guarantee implicit in the Privileges and Immunities Clause of the Fourteenth Amendment.[198]

Closely related to the right to freedom of public movement is the right to repose, or stasis, in public. In *Chicago v. Morales*,[199] a four-member plurality of the Court stated that

> the freedom to loiter for innocent purposes is part of the 'liberty' protected by the Due Process Clause of the Fourteenth Amendment. . . . Indeed, it is apparent that an individual's decision to remain in a public place of his choice is as much a part of his liberty as the freedom of movement

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[195] *Kent*, 357 U.S. at 126 (quoting ZECHARIAH CHAFEE, JR., THREE HUMAN RIGHTS IN THE CONSTITUTION OF 1787 197 (1956)); *see also* Shapiro v. Thompson, 394 U.S. 618, 629 (1969)("our constitutional concepts of personal liberty unite to require that all citizens be free to travel throughout the length and breadth of our land uninhibited by statutes, rules, or regulations which unreasonably burden or restrict this movement.").

[196] See Williams v. Fears, 179 U.S. 270, 274 (1900)(referring to the right to move from place to place as the "right of locomotion").

[197] *Kent*, 357 U.S. at 126.

[198] Saenz v. Roe, 526 U.S. 489, 502-503 (1999).

[199] 527 U.S. 41 (1999).

> inside frontiers that is "a part of our heritage," or the right to move "to whatsoever place one's own inclination may direct" identified in Blackstone's Commentaries.[200]

The Court has been emphatic about striking down vagrancy statutes that trench on this right to repose.[201]

How might these interests in locomotion and stasis–the "freedom to walk, stroll, or loaf"[202]–be affected by the panoptic eye of the camera? Although no courts have directly addressed this issue, the few that have dealt with analogous facts are wary of camera use that affects these interests, at least when there is also proof of some animus. In *Goosen v. Walker*,[203] for instance, a Florida court enjoined the defendant from further videotaping of his neighbors (with whom he had previously had altercations), concluding that his videotaping of them in their yard and adjoining areas, on two to four occasions over a four month period, constituted "stalking."[204] In *State v. Baumann et al.*,[205] the court upheld an order that permanently enjoined thirty-two individuals from photographing or videotaping people entering and leaving an abortion clinic under circumstances that exhibited "an intent to harass, intimidate or interfere with any person seeking access to or departing from such facility."[206]

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[200] *Morales*, 527 U.S. at 53-54 (citations omitted).

[201] *Id.*, at 64; Kolender v. Lawson, 461 U.S. 32 (1983)(invalidating California statute requiring individuals who loiter or wander the streets to present police officers with identification upon request); Papachristou v. Jacksonville, 405 U.S. 156 (1972)(invalidating Jacksonville vagrancy ordinance); Coates v. Cincinnati, 402 U.S. 611 (1971)(invalidating Ohio ordinance making it unlawful for three or more people to assemble in certain public areas in a manner annoying to others).

[202] Roe v. Wade, 410 U.S. 179, 213 (1973)(Douglas, J., concurring).

[203] 714 So.2d 1149 (Fla. Dist. Ct. App.1998).

[204] *Goosen*, 714 So.2d at 1150.

[205] No. 92-3198, 1995 WL 78289 (Wis.Ct.App.1995).

[206] *Baumann*, 1995 WL 78289, at *2; *see also* Pro-Choice Network of Western New York, 799 F.Supp. 1417, 1437-39 (W.D.N.Y.1992)(cautioning that if defendants continue to use cameras to intimidate women entering abortion clinics, the court would not hesitate to restrict defendants' use of cameras); Planned Parenthood v. Aakhus, 17 Cal. Rptr.2d 510, 515 (Cal. Ct. App. 1993 (photographing and videotaping abortion clinic clients violated the right to privacy under the California Constitution); Chico Feminist Women's Health Ctr. v. Scully, 256 Cal. Rptr. 194, 196-97 (Cal. Ct. App. 1989)(upholding an injunction against abortion protest-

Even the media, normally left unrestrained by courts concerned about freedom of the press, can go too far. In *Wolfson v. Lewis*,[207] for instance, the court held that "a persistent course of hounding [by reporters], even if conducted in a public or semi-public place, may nevertheless rise to the level of invasion of privacy based on intrusion upon seclusion."[208] It then issued an injunction against investigative news reporters who had repeatedly sought to videotape and eavesdrop on a business executive and his family in and outside their home and place of work.[209]

In *Goosen* the videotaping inhibited repose (in the targets' backyard), in *Baumann* it inhibited movement (to and from the abortion clinic), and in *Wolfson* it inhibited both (around the house and workplace and going to and from those locations). In all three, the videotaping was actionable. That suggests that public surveillance, even when targeting actions not protected by the First Amendment, can infringe interests in locomotion and stasis to a legally cognizable degree.

At the same time, all three courts required proof that those who wielded the cameras intended to harass. That type of motivation will usually be absent when government watches with public surveillance cameras. Using the terminology of these cases, to say that the government's camera surveillance of people walking the streets constitutes the malicious-sounding acts of "stalking," "intimida[tion] or interfere[nce]," or "a persistent course of hounding" will normally be an exaggeration.

A crucial fact about each of these three cases, however, is that all of the defendants were raising First Amendment

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ers photographing license plates and people entering or leaving an abortion clinic). Although these decisions were based on varying considerations, including, as in *Aakhus*, informational privacy, the immediate harm was the unjustifiable inhibition of the plaintiffs' ability to go about their business.

[207] 924 F.Supp. 1413 (E.D.Pa.1996).

[208] *Wolfson*, 924 F. Supp. at 1420; *see also* Galella v. Onassis, 533 F.Supp. 1076 (S.D.N.Y. 1982)("under certain circumstances, surveillance may be so 'overzealous' as to render it actionable. It does not strain credulity or imagination to conceive of the systematic 'public' surveillance of another as being the implementation of a plan to intrude on the privacy of another")(citing Nader v. General Motors Corp., 255 N.E.2d 765, 771, 772 (1970)).

[209] *Wolfson*, 924 F.Supp. at 1432-33.

claims. That is, they were asserting that camera-*users*, whether lay or press, have a First Amendment right to videotape public events,[210] an assertion that the courts in these cases accepted. Given the nature of the right the injunctions would infringe, the courts had to find a compelling justification for them–illegitimate harassment.[211] If, on the other hand, public videotaping were not considered a First Amendment activity, such proof would not be considered necessary.

The latter observation has significant implications for government-run CCTV. Unlike its citizens, the government does not have a First Amendment right to train cameras on the populace. Accordingly, an absence of ill-will on the part of government agents who operate the cameras should not immunize them from scrutiny. Instead, the issue should be, straightforwardly, whether government camera surveillance trenches on the right to movement or repose.

It clearly does, for reasons stated in Part I. People ogled by cameras may choose to walk rather than run; move on rather than loiter; even avoid going where they would like to go altogether. While government surveillance may not amount to intentional stalking or hounding, it is not innocuous. Indeed, whatever its intent, it can have a similar *effect* to stalking, given its inhibition of public locomotion.[212]

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[210] *See Goosen*, 714 So.2d at 1149 (appellant "argues that the injunction is unconstitutional because it violates the First Amendment"); *Baumann*, 1995 WL 78289, at *4 ("Appellants claim that the 'non-blockading' provisions of the injunction are 'invalid content-based regulations not narrowly drawn to serve the compelling state interest' and, therefore, violative of rights guaranteed under the First Amendment."); *Wolfson*, 924 F.Supp. at 1415 ("Defendants contend that they did not invade plaintiffs' privacy and that their conduct investigating the salaries of U.S. Healthcare executives is protected by the First Amendment to the United States Constitution.").

[211] *Goosen*, 714 So.2d at 1150 ("While the First Amendment confers on each citizen a powerful right to express oneself, it gives the [citizen] no boon to jeopardize the health, safety, and rights of others")(alteration in original)(quoting Bouters v. State, 659 Sol2d 235, 237 (Fla. 1995); *Baumann*, 1995 WL 78289, at *7 ("[n]o matter how public the setting or the subject, there is no First Amendment right to use a camera as a tool of intimidation"); *Wolfson*, 924 F.Supp. at 1433 ("A reasonable jury would likely conclude that it is difficult to understand how hounding, harassing, and ambushing the Wolfsons would advance the newsworthy goal of exposing the high salaries paid to U.S. Healthcare executives or how such conduct would advance the fundamental policies underlying the First Amendment which include providing information to 'enable members of society to cope with the exigencies of their period.'").

That conclusion does not dictate that such surveillance be prohibited, of course. It simply requires, again, that the government demonstrate a legitimate reason for its actions. As the Supreme Court has said, "restrictions on the right to travel . . . may not be achieved by means which sweep unnecessarily broadly and thereby invade the area of protected freedoms."[213]

3. The Right to Privacy

A third constitutional basis for regulating CCTV comes from the general right to privacy which is found, depending upon the decision announcing the right, in the penumbras of the First, Third, Fourth and Fifth Amendments, the Fourteenth Amendment's Due Process Clause, or the Ninth Amendment's reservation of rights to the states.[214] The Supreme Court has relied on this right (which in the caselaw is often subsumed under a "due process right to liberty") in striking down laws banning abortion,[215] interracial marriage,[216] purchase and use of contraceptives,[217] and the like.[218] As with the rights to freedom of movement and repose, the right to privacy is not limited to protection of expressive conduct.

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[212] *See* William A. Stuntz, *The Distribution of Fourth Amendment Privacy*, 67 GEO. WASH. L. REV. 1265, 1277 (1999)(noting that stakeouts "sometimes do involve monitoring the movements of a given suspect . . . over an extended period of time," which is "roughly the equivalent of being stalked.").

[213] Aptheker v. Secretary of State, 378 U.S. 500, 507-08 (1964)(quoting NAACP v. Alabama *ex rel.* Flowers, 377 U.S. 288, 307 (1964)). *Aptheker* went on to find unconstitutional the State Department's revocation of passports held by members of the Communist Party because "[t]he prohibition against travel is supported only by a tenuous relationship between the bare fact of organizational membership and the activity Congress sought to proscribe." *Id.* a 514.

[214] *See* ERWIN CHEMERINSKY, CONSTITUTIONAL LAW: PRINCIPLES AND POLICIES 785, 790 (2d ed. 2002)(noting these differing bases for the privacy right).

[215] Roe v. Wade, 410 U.S. 113, 153 (1973)("[The] right to privacy, whether it be founded in the Fourteenth Amendment's conception of personal liberty and restrictions upon state action, as we feel it is, or, . . . in the Ninth Amendment's reservation of rights to the people, is broad enough to encompass a woman's decision whether or not to terminate her pregnancy.").

[216] Loving v. Virginia, 388 U.S. 1, 12 (1967)(stating that antimiscegenation laws "surely . . . deprive all the State's citizens of liberty without due process of law").

[217] Eisenstadt v. Baird, 405 U.S. 438, 453 (1972)(holding that a law which prohibited sale of contraceptives to unmarried people was unconstitutional be-

There are at least two versions of the right to privacy, one focusing on protection-of-personhood and the second on freedom-from-normalization. The personhood version views the right to privacy as a means of ensuring individuals are free to define themselves. It protects against state interference in decisions that are "central to the personal identities of those singled out."[219] The anti-normalization version, in contrast, focuses on the extent to which the government action standardizes lifestyles.[220]

The manner in which public camera surveillance affects our ability to define ourselves has already been suggested, but a recent article by Andrew Taslitz fleshes out the analysis. Privacy, Taslitz notes, enables us to present to others only those parts of our selves that we want them to see.[221] That in turn enables us to put forth different versions of our selves in different contexts, with those at the job seeing one side, those at home seeing another, and those at social events or athletic competitions seeing still another.[222] Even in public, we expect privacy to play its role as a facilitator of self-definition. Taslitz quotes Michael Riesman's observation that "[p]eople may look, but they are expected to look at those parts that the owner of the exoself wants them to look at, at appropriate times and

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cause, "[i]f the right to privacy means anything, it is the right of the *individual*, married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child"); Griswold v. Connecticut, 381 U.S. 479, 485 (1965)(holding that a law which prohibits sale and use of contraceptives infringes "penumbral rights of privacy and repose").

[218] *See generally* CHEMERINSKY, *supra* note 214, at 768-827.

[219] Jed Rubenfeld, *The Right Of Privacy*, 102 HARV. L. REV. 737, 752-54 (1989).

[220] *Id.* at 783-87 & 794 ("The point is not to save for the individual an abstract and chimerical right of defining himself; the point is to prevent the state from taking over, or taking undue advantage of, those processes by which individuals are defined in order to produce overly standardized, functional citizens.").

[221] Andrew E. Taslitz, *The Fourth Amendment in the Twenty-First Century: Technology, Privacy, and Human Emotions*, 65 LAW & CONTEMP. PROBS. 125, 152 (2002).

[222] *Id.*

following certain procedures."[223] Ogling, staring, or merely paying more than fleeting attention to strangers in public is considered impolite and uncivil, because it crosses personal boundaries and requires revelation of more than we are used to revealing.[224] Such conduct prevents us from retaining control over how we present ourselves.

Thus, Taslitz summarizes, "[w]ho looks at us, how, how long, and for what purposes matter."[225] With respect to camera surveillance in particular, he concludes:

> [w]hen technology enables the government to stare with an ever-vigilant and suspicious eye, the boundaries of the self may partly dissolve, reconstructed in the image chosen by Leviathan. . . . Regulation [of this technology] preserves the idea of a diverse, noisy America, where citizens are free to get lost in the crowd and where their sense of self stems from their chosen affiliations and actions rather than from the all-seeing gaze of the state."[226]

As this last statement suggests, because a substantial part of our personality is developed in public venues, through rituals of our daily lives that occur outside the home and outside the family, cameras that stultify public conduct can stifle personality development.[227]

The second version of the right to privacy, championed by Jed Rubenfeld, pushes toward the same conclusion, but from a different direction. Rubenfeld debunks the personhood version of privacy–again, the notion the Court's privacy decisions should be construed as means of preserving an enclave of decisionmaking (such as abortion or marriage) that allows the individual to develop one's identity and exercise one's autonomy. Rather, he argues that these types of cases deal with "the fundamental freedom not to have one's life too totally determined by a progressively more normalizing state."[228] A prohibition on abortion and use of contraceptives is unconstitutional, he says, not because decisions about those issues are necessary to self-definition, but because together they force women to be mothers;[229] a prohibition on interracial marriages is unconstitutional not because it infringes one's autonomy to do what one wants, but because it coerces people into having homogenous children.[230] The "danger" of such laws, Rubenfeld states,

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[223] *Id.* at 169 (quoting Michael Reisman, Law in Brief Encounters 31 (1999)).

[224] *Id.*

[225] *Id.* at 171.

[226] *Id.* at 171-72.

[227] *Cf.* Roberts v. United States Jaycees, 468 U.S. 609, 619 (1984)(anonymity "safeguards the ability independently to define one's identity that is central to any concept of liberty"); *see generally* Lee Tien, *Who's Afraid of Anonymous Speech: McIntyre and the Internet*, 75 ORE. L. REV. 117, 120 (1996)("anonymity is useful for constituting individual and group identity in interaction."); Robert Post, *The Social Foundations of Privacy: Community and Self in the Common Law of Tort*, 77 CAL. L. REV. 957, 964 (1989)("An intrusion on privacy is intrinsically harmful because it is defined as that which injures social personality.").

> is a particular kind of creeping totalitarianism, an unarmed *occupation* of individuals' lives. That is the danger of which Foucault as well as the right to privacy is warning us: a society standardized and normalized, in which lives are too substantially or too rigidly directed. That is the threat posed by state power in our century.[231]

Note in particular Rubenfeld's use of Foucault. Here Rubenfeld is referring to the same Foucaultian concerns identified earlier in this article about the modern state's ability, "through expanded technologies and far more systematic methods of acculturation, . . . to watch over and shape our lives, to dispose and predispose us, and to inscribe into our lives and consciousnesses its particular designs."[232] Although Rubenfeld does not speak of government surveillance directly, his argument that the right to privacy has been and should be ranged against government actions that promote "normalization" has significant implications for that particular type of state action. As Simon Davies commented in describing the effect of CCTV and other forms of technological surveillance, "[t]he society we are developing now . . . is a Brave New World dominated not so much by tyranny as by a deadening political and cultural phenomenon that Ralph Nader calls 'harmony ideology' [the coming together of opposing ideologies and beliefs into manufactured consensus]."[233] If CCTV contributes to that effect–and the literature linking panopticism and anticipatory conformity suggests it does[234]–it impinges directly on the privacy right that Rubenfeld believes the Court's decisions establish, and should be regulated accordingly.

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[228] Rubenfeld, *supra* note 219, at 784.
[229] Rubenfeld, *supra* note 219, at 788-91.
[230] Rubenfeld, *supra* note 219, at 791-92.
[231] Rubenfeld, *supra* note 219, at 784.
[232] Rubenfeld, *supra* note 219, at 775.

4. Freedom from Unreasonable Searches and Seizures

None of these arguments about a constitutional basis for regulating government camera surveillance rely directly on the Fourth Amendment. Surely if CCTV implicates the First Amendment, the due process rights to movement and repose, or the general right to privacy, it ought to implicate the Fourth Amendment as well. Yet the Supreme Court's caselaw construing the scope of that amendment leaves little purchase for such a position.

In *Katz v. United States*,[235] the seminal decision defining the threshold of the Fourth Amendment, the Supreme Court held that government agents who bugged a phone booth had engaged in a Fourth Amendment search.[236] Even though previous cases had held that the Fourth Amendment is not implicated unless a trespass occurs on a "constitutionally protected area" (i.e., a house, person, paper or effect),[237] and even though the bugging in this case involved neither a trespass or a protected area, the Court reasoned that "what a person seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected."[238]

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[233] Davies, *supra* note 38, at 144 & n.1.

[234] *See supra* text accompanying notes 131-137.

[235] 389 U.S. 347 (1967).

[236] *Katz*, 389 U.S. at 353.

[237] *See, e.g.*, Silverman v. United States, 365 U.S. 505, 510 (1961)(stating that its holding that use of a spike mike inserted in defendant's wall is a search was "based upon the reality of an actual intrusion into a constitutionally protected area"); Olmstead v. United States, 277 U.S. 438, 464 (1928)(in holding that wiretapping is not a search, stating that "[t]he evidence was secured by the use of the sense of hearing and that only. There was no entry of the houses or offices of the defendants.").

The majority opinion also stated, however, that "what a person knowingly exposes to the public . . . is not a subject of Fourth Amendment protections."[239] This is the sentiment upon which the Court relied in *Knotts* when it held that use of a beeper to monitor movement on the public highway is not a search.[240] As the lower court caselaw previously surveyed indicated, application of this formulation to CCTV is likely to produce the same result.[241] One could perhaps argue that one did not "know" certain public conduct was exposed to the camera, but that strategy is unlikely to work under most circumstances. First, we are talking about overt, not covert, camera use, accompanied by signs announcing its presence. Second, the Court has indicated that government need not show actual knowledge of exposure to nullify Fourth Amendment protection. If a target *should have* known public exposure might occur, the Court has held, one assumes the risk of such exposure and loses Fourth Amendment protection.[242]

That's not all. Time and again, the Court has emphasized the distinction between mere observation and physical intrusion.[243] Thus, police observation from a public vantage point is not a search, even if the area observed is the curtilage, traditionally considered to be part of the home.[244] Indeed, even if the target is the home itself, the degree of physical intrusion plays an important role. In the Court's recent decision in *Kyllo v. United States*,[245] the Court held that use of a thermal imager to detect heat sources inside a house is a search, whether or not the government agent using the imager is on public property.[246] However, in dictum the Court exempted from Fourth Amendment protection naked eye surveillance of the home that does not require "physical intrusion into a constitutionally protected area," as well as any technological surveillance that merely replicates what such naked eye viewing would observe.[247] To the extent CCTV merely replicates what naked observation from a public vantage point could view, it is unlikely to merit Fourth Amendment protection apparently even when it allows viewing of the interior of the home.

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[238] *Katz*, 389 U.S. at 351.

[239] *Id.*

[240] United States v. Knotts, 460 U.S. 276, 285 (1983)("A police car following Petschen at a distance throughout his journey could have observed him leaving the public highway and arriving at the cabin owned by respondent, with the drum of chloroform still in the car.").

[241] *See supra* note 106.

[242] Smith v. Maryland, 442 U.S. 735, 744 (1979)(holding that police did not carry out a search when they obtained phone numbers dialed by Smith from phone company because, by dialing the numbers, Smith "assumed the risk that the company would reveal to police the numbers he dialed.").

[243] *See, e.g.*, Bond v. United States, 529 U.S. 334, 337 (2000)(in holding that feeling soft luggage was a search, Court stated "[p]hysically invasive inspection is simply more intrusive than purely visual inspection"); Dow Chem. Co. v. U.S. 476 U.S. 227, 237 (1986)(in holding that EPA photography of a chemical plant's curtilage from a plane was not a search, stating that "[a]ny actual physical entry by EPA into any enclosed area would raise significantly different questions"); California v. Ciraolo, 476 U.S 207, 213 (1986)(in holding that looking into a backyard from an airplane is not a search, stating "[t]he observations took place within public navigable airspace . . . in a physically nonintrusive manner").

Similarly, despite CCTV's inhibition of the right to movement, it is unlikely to amount to a Fourth Amendment "seizure" under the Court's cases. Such a seizure occurs when the government, "by means of physical force or show of authority, has in some way restrained the liberty of a citizen,"[248] or at least when "a reasonable person [would not be] at liberty to ignore the police presence and go about his business."[249] Although the latter formulation could in theory contemplate the effects of CCTV, which may well retard people's ability to go about their business, the Court has twice held that police do not effect a seizure if they conspicuously follow or chase an individual without bringing the individual to a stop.[250] Under this caselaw, it would be difficult to argue that monitoring an individual with a camera is a seizure.

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[244] *See Dow Chem.*, 476 U.S. at 236-37 (upholding aerial surveillance of business curtilage); *Ciraolo*, 476 U.S. at 213 (noting that not all police observation of the area within curtilage is disallowed).

[245] 533 U.S. 27 (2001).

[246] *Kyllo*, 533 U.S. at 40.

[247] *Id.* ("Where . . . the Government uses a device that is not in general public use to explore details of the home that would previously have been unknowable without physical intrusion, the surveillance is a search."). I have pointed out that this language could be read to mean "that if the activity observed could be seen with the naked eye without physical intrusion into the constitutionally protected areas of home or curtilage, then police may exploit *any* technology–generally used or not–without implicating the Fourth Amendment." Christopher Slobogin, *Peeping Techno-Toms and the Fourth Amendment: Seeing Through Kyllo's Rules Governing Technological Surveillance*, 86 MINN. L. REV. 1393, 1419 (2002).

[248] Terry v. Ohio, 392 U.S. 1, 20 n. 16 (1968).

[249] Michigan v. Chesternut, 486 U.S. 567, 569 (1988).

But what about the fact that CCTV allows recording of one's public activity? It has been argued that even if we assume the risk that others will view our public conduct, we do not assume the risk that our public actions will be reduced to a photograph or film that can be "scrutinized indefinitely and disseminated to an unintended audience" and that "allows the viewer to discern details that would not have been apparent to a casual observer."[251] This argument too is plausible, but once again the Court's cases are very unhelpful as support. In *On Lee v. United States*,[252] the Supreme Court held that the Fourth Amendment is not implicated when the government overhears and records an individual's conversation with an informer through a body bug worn by the informer,[253] a holding it later affirmed.[254] If we have to assume the risk that our acquaintances are secretly recording our conversations, we probably also have to assume the risk that overt CCTV will be recording our public conduct.

There are at least three lines of attack against this view of the Fourth Amendment's (non) application to CCTV. The first, of course, is to show that the Court's public exposure/assumption of risk approach to the Fourth Amendment is misguided. That approach has already produced intriguing scholarship (which the Court unfortunately has ignored),[255] and no such effort will be made in this article. The second method of undermining the apparent judicial acquiescence to unregulated public surveillance is to accept the Court's formulation of the Fourth Amendment's threshold, but to distinguish its caselaw by insisting, for instance, that CCTV *does* effectuate a "seizure" because of its effect on movement, or that it *does* constitute a "search" when it creates a record because that is not a risk we assume when we go out in public. The likely futility of this line of argument has already been suggested, and in any event will not be pursued here.[256]

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[250] *See Chesternut*, 486 U.S. at 574 (holding police car driving alongside defendant not a seizure); California v. Hodari, 499 U.S. 621, 629 (1991)(police chase of defendant not a seizure).

[251] Sim, *supra* note 140, at 470-71; *see also*, Andrew J. McClurg, *Bringing Privacy Law Out of the Closet: A Tort Theory of Liability for Intrusions in Public Places*, 73 N.C. L. REV. 989, 1041-44 (1995).

[252] 343 U.S. 747 (1952).

[253] *On Lee*, 343 U.S. at 753 (the defendant "was talking confidentially and indiscreetly with one he trusted, and he was overheard . . . . due to aid from a transmitter and receiver, to be sure, but with the same effect on his privacy as if agent Lee had been eavesdropping outside an open window.").

[254] United States v. Caceres, 440 U.S. 741 (1979).

[255] *See, e.g.*, Scott E. Sundby, *"Everyman"'s Fourth Amendment: Privacy or Mutual Trust Between Government and Citizen?*, 94 COLUM. L. REV. 1751 (1994)

The third line of attack, which I do undertake here, is to take seriously the Court's admonition that the Fourth Amendment's scope is ultimately defined by "expectations of privacy society is prepared to recognize as reasonable." This language, first found in Justice Harlan's concurring opinion in *Katz*[257] and since elevated to litmus test status (superceding even the "knowing exposure" language),[258] suggests an empirical inquiry into society's views about privacy. If the Court really means to equate Fourth Amendment protections with the expectations of privacy that society is prepared to recognize as reasonable, it should not ignore society's views on that topic. The next section briefly describes one effort at such an inquiry, which resulted in findings that support the Fourth Amendment's application to CCTV.

(arguing that inculcation of trust between citizens and government, not privacy, should be the core interest protected by the Fourth Amendment); William J. Stuntz, *Privacy's Problem and the Law of Criminal Procedure*, 93 MICH. L. REV. 1016 (1995) (arguing that coercion, not privacy, should be the principal focus of Fourth Amendment protection); Tom Clancy, *What Does the Fourth Amendment Protect: Property, Privacy, or Security?*, 33 WAKE FOREST L. REV. 307 (1998) (arguing that the Fourth Amendment protects security); *see also* R. v. Duarte, 1 S.C.R. 30, paras. 25, 26 (1990), where the Canadian Supreme Court held that reasonable expectations of privacy are to be defined by standards of privacy that persons can expect to enjoy in a "free society," not by assumption of risk analysis.

[256] But *see supra* text accompanying note 109.

[257] Katz v. United States, 389 U.S. 347, 361 (Harlan, J., concurring).

[258] WAYNE R. LAFAVE, 1 SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT 384 (3d ed. 2002)("[L]ower courts attempting to interpret and apply *Katz* quickly came to rely upon the Harlan elaboration as ultimately did a majority of the Supreme Court.").

C. An Empirically-Based Case for Fourth Amendment Regulation of CCTV

Basing Fourth Amendment protection on society's expectations of privacy requires answering several questions. First, how can we discover these expectations? Second, what are they? Third, in what sense are they relevant to Fourth Amendment analysis?

1. Sources of Society's Privacy Expectations Vis-a-vis CCTV

How does one determine society's views about whether CCTV threatens privacy? One source is the positive law governing public camera surveillance by entities other than the government. If such surveillance is a crime or a tort, then it might be said to infringe on expectations of privacy considered important by society.

At first glance, both case law and statutory law appear to indicate quite the opposite. As noted previously,[259] the court decisions that address overt videotaping of public activity by private actors generally require a significant degree of maliciousness before relief will be granted.[260] Statutory law regarding public camera use is also sparse. Recall that only Arizona has a statute specifically dealing with public videotaping by private parties,[261] in contrast to the many states that prohibit or significantly limit use of cameras to capture activities within the home.[262]

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[259] *See supra* text accompanying notes 203-10.

[260] *See also*, William L. Prosser, *Privacy*, 48 CAL. L. REV. 383, 391-92 (1960) (asserting that the tort of privacy invasion is not implicated when one takes a photograph of a person in a public place, "since this amounts to nothing more than making a record, not differing essentially from a full written description, of a public sight which any one present would be free to see"); Sheldon Halpern, *The Traffic in Souls: Privacy Interests and the Intelligent Vehicle-Highway Systems*, 11 SANTA CLARA COMPUTER & HIGH TECH. L. J. 45, 59-60 (1995)(noting that "to the limited extent that . . . observation per se, absent publication . . . has been deemed actionable, it has been surreptitious and offensively intrusive").

[261] *See supra* notes 100-02 and accompanying text.

[262] *See, e.g.*, statutes cited *supra* note 104; *see also State Hidden Camera Statutes at* http://www.rcfp.org/handbook (listing eleven other states that "expressly prohibit the unauthorized installation or use of cameras in private places.").

This paucity of positive law regulating public camera use probably says little about society's attitudes toward CCTV, however. That is because there is no real private analogue to government-run CCTV. No entity other than the government engages in concerted, overt surveillance of the public streets using cameras. If private companies or individuals began filming public spaces twenty-four hours a day using zoom and nightvision capacity in an effort to discern, say, people's shopping, exercise, eating and drinking patterns, both tort and statutory regulation would probably be forthcoming.[263]

A second source of information about society's views concerning the intrusiveness of CCTV comes from polls directly asking about attitudes toward CCTV. Although to date there are few polls of that type in the United States,[264] researchers in the United Kingdom have conducted several. All of them show significant public support for CCTV, well-above 60%.[265] Yet the most sophisticated poll of this type also indicated some concern about the practice, despite its prevalence in that country. More than 50% of the respondents felt that some entity other than the government or private security firms should be responsible for the installation of CCTV in public places, 72% agreed that "these cameras could easily be abused and used by the wrong people," 39% believed that the people in control of these systems could not be "completely trusted to use them only for the public good," and 37% felt that "in the future, cameras will be used by the government to control people."[266] More than 10% of the respondents believed that CCTV cameras should be banned.[267] Americans, who tend to be more concerned about government power than the British, would probably be even more hostile to CCTV.

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[263] Somewhat analogous to such regulation is the federal government's effort to limit private companies' accumulation of data about habits and personal characteristics from credit reports, government records, driver's licenses, video rentals, student records, health records, children's Internet activities, and banking, insurance, and investment company records. Although these statutory efforts at regulation are not particularly effective, they represent a desire to restrict the extent to which private entities can obtain information that we have disclosed to people outside our immediate circle and that sometimes are even a matter of "public record." *See generally* Daniel J. Solove, *Privacy and Power: Computer Databases and Metaphors for Information Privacy*, 53 STAN. L. REV. 1393, 1440-44 (2001) (describing the legislation and its flaws).

[264] A Harris poll conducted in the United States in October, 2002, did indicate that 63% of those surveyed were in favor of "increased video surveillance" of public places like airports. Ken Kaye, *High Tech Security Gets Tests at Airports*, FT. LAUDERDALE SUN-SENTINEL, Jan. 20, 2002, at A1.

[265] *See* Taylor, *supra* note 48, ¶ 16 (reporting polling results that found between 69 and 95% in favor of the cameras). *But see supra* note 144, describing a study leading the author to question the higher figures on the ground that those surveyed were usually plied with positive statements about CCTV beforehand.

More importantly, poll results showing favorable attitudes toward CCTV fail to distill feelings about intrusiveness from feelings about security. Those who say they do not mind government camera surveillance may be allowing its perceived effectiveness at preventing crime to submerge their discomfort about being watched. That attitude makes sense; indeed, if the threat of harm to be prevented is high, a wide range of people will welcome policing techniques much more intrusive than camera surveillance, as reactions to the events of September 11 have shown.[268] Under the Fourth Amendment, however, that type of balancing/reasonableness calculus is not supposed to inform the initial question of whether something is a search or seizure, but rather only whether something that is a search or seizure is justified.[269]

To isolate the intrusiveness question more cleanly with respect to CCTV, I used a methodology that Joseph Schumacher and I developed in a previous study about the Fourth Amendment's threshold.[270] In that study we asked people how they rated the intrusiveness of a *number* of police investigative techniques. That approach permits a better assessment of how people feel about the effect each technique has on privacy, because it produces a hierarchy of perceived intrusiveness; even people who are willing to sacrifice most or all of their privacy interests to fight crime evaluate the privacy-invading impact of different crime fighting techniques differently. Thus, for instance, on average our subjects rated a body cavity search as the most intrusive of the scenarios and a search of a public park as the least, and a search of a bedroom as more intrusive than a frisk.[271] From these types of results, one can draw useful conclusions about the relative magnitude of people's expectations of privacy with respect to a given technique such as CCTV.

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[266] Davies, *supra* note 38, at 152 (describing a British Home Office survey conducted in 1992).

[267] *Id.*

[268] *See supra* note 95.

[269] *See* Christopher Slobogin, *Let's Not Bury Terry: A Call for Rejuvenation of the Proportionality Principle*, 72 ST. JOHN'S L. REV. 1053, 1072 (1998)(asserting that using balancing analysis to define search or seizure "is barred by the language of the Fourth Amendment itself. That provision's prohibition on 'unreasonable searches and seizures' applies the reasonableness test only *after* something has been labeled a search or seizure.").

[270] Christopher Slobogin & Joseph E. Schumacher, *Reasonable Expectations of Privacy and Autonomy in Fourth Amendment Cases: An Empirical Look at "Understandings Recognized and Permitted by Society,"* 42 DUKE L. J. 727 (1993).

Unfortunately, the fifty scenarios in the Slobogin & Schumacher study did not include any involving camera surveillance. The study reported here fills that gap.

2. The Study

The survey form developed for this study was similar to the form used in the original Slobogin and Schumacher study with a few notable exceptions. First, it contained only twenty relevant scenarios,[272] not fifty. Second, it included two or three scenarios (depending upon which of three survey versions the subject received) describing various forms of camera surveillance. The three basic camera surveillance scenarios were police use of cameras with zoom capacity at national monuments, police use of cameras with zoom capacity at airports and other transportation centers, and police use of cameras with zoom capacity at 300-yard intervals along a public street. The latter scenario had two variations: overt versus hidden cameras, and destruction of records within 96 hours versus indeterminate retention of records which could be released to government agencies and the media as needed. Also new with this survey form were scenarios involving other types of technological surveillance (i.e., beepers and "see-through" devices[273]) and a scenario describing a police officer following an individual on the public street.[274]

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[271] *Id.* at 738-39 (Table 1).

[272] The survey actually contained twenty-five scenarios but the results pertaining to several of them (involving, e.g., searches of personal diaries and car trunks) do not add appreciably to the discussion and are not reported here.

The survey was completed by 190 people called for jury duty in Gainesville, Florida. Because Florida jury pools are randomly selected from voter registration lists, this sample was a relatively diverse group of people. As in the earlier study,[275] the subjects were told to assume that, in each scenario, the police were looking for evidence of crime but that the target of the police action had not engaged in any criminal activity. In other words, the subjects were told to assume the individuals in the scenarios were innocent, an assumption that is consistent with the Supreme Court's definition of "search" and "seizure" for Fourth Amendment purposes.[276] Then, as in the earlier study,[277] the subjects were told to rate each scenario in terms of "intrusiveness" on a scale of 1 to 100, with 1 representing "not intrusive" and 100 representing "very intrusive."

Using these ratings, an average intrusiveness rating for each scenario was calculated, along with the standard deviation so that the statistical significance of any differences between averages could be computed. As with the previous study, several such differences resulted. Table 1 reports the mean intrusiveness rating of the twenty scenarios,[278] together with their confidence intervals (a figure which, when added to or subtracted from the mean, indicates the extent to which a given difference between means is statistically significant[279]). The following discussion will focus on those findings most relevant to understanding what the subjects thought about camera surveillance.

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[273] *See supra* note 47 and accompanying text

[274] The survey forms are on file with the author and the *Mississippi Law Journal.*

[275] Slobogin & Shumacher, *supra* note 270, at 736.

[276] *See, e.g.*, Florida v. Bostick, 501 U.S. 429, 438 (1991)("the 'reasonable person' test presupposes an *innocent* person"); Florida v. Royer, 460 U.S. 491, 519 n.4 (1983)(Blackmun, J., dissenting) ("The fact that [respondent] knew the search was likely to turn up contraband is of course irrelevant; the potential intrusiveness of the officers' conduct must be judged from the viewpoint of an innocent person in [his] position").

[277] Slobogin & Schumacher, *supra* note 270, at 736.

[278] Some of the scenarios in this study that were very similar to those used in the previous one received significantly different means. For example, the coal mine inspection scenario yielded a mean of 25 in this study versus a mean of 52 in the previous one; the patdown scenario a mean of 68 in this study and of 55 in the previous one; the border body cavity search scenario a mean of 75 in this study and of 90 in the previous one. Comparisons are problematic, however, because the previous study incorporated many variations that were not present in this study. *See id.* at 733-36. Also, the patdown scenario in the present study

TABLE 1

Mean Intrusiveness Ratings of Twenty Scenarios

Scenario	*Mean*	*Confidence Interval*
1. Looking in foliage in park	8	±4
2. Heath & safety inspection of factory	14	±4
3. Monitoring cameras at national monuments	20	±7
4. Monitoring cameras at government buildings, airports, train stations	20	±7
5. Inspection of a coal mine	25	±5
6. Monitoring cameras at convenience and retail stores	26	±8
7. Stopping drivers at roadblock for 15 seconds	35	±5
8. Monitoring covert street cameras with zoom capacity	42	±9
9. Flying helicopter 400 feet over backyard	50	±5
10. Police officer noticeably following person down street	50	±5
11. Going through garbage cans at curbside	51	±5
12. Search of a junkyard	51	±5
13. Monitoring overt street cameras; tapes destroyed after 96 hours	53	±8
14. Monitoring a beeper on a car for three days	63	±5
15. Use of device that can see through clothing to detect outline of items	67	±5
16. A patdown of outer clothing, feeling for weapons	68	±5
17. Use of a video camera to overhear a conversation on the street	70	±5
18. Same as 13, but tapes not destroyed	73	±8
19. Body cavity search at border	75	±5
20. Search of bedroom	76	±5

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stated that the officer "was feeling for weapons," whereas the previous study merely stated he patted down the outer clothing. Nonetheless, with the exception of the first two examples given, the hierarchy produced by the two studies is very similar.

[279] For explication, *see id.* at 745 n.67. The confidence intervals are larger for the camera surveillance scenarios because, given the desire to test variations of those scenarios, there were fewer surveys completed for each.

The most important finding of the study for purposes of this article was the relative rating of the scenario involving cameras overtly positioned at 300-yard intervals along the street. As can be seen from Table 1, that scenario (#13) received an average intrusiveness rating of 53 (M=53). This rating was significantly lower (as a statistical matter) than the ratings for bedroom searches (M=76), body cavity searches (M=75) and electronic eavesdropping on conversations in public (M=70), which require probable cause,[280] and also significantly lower than the rating for either a traditional (M=68) or electronic frisk (M=67), which require reasonable suspicion.[281] At the same time, it was significantly higher than the average intrusiveness ratings for a health and safety inspection of a factory (M=14), an inspection of a coal mine (M=25), and a 15-second stop at a roadblock (M=35), all government actions that the Supreme Court has declared are governed by the Fourth Amendment.[282]

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[280] Searches of bedrooms and eavesdropping on "private" conversations carried out in public clearly require probable cause. Chimel v. California, 395 U.S. 752, 768 (1969)(holding non-exigent search of bedroom requires warrant); Katz v. United States, 389 U.S. 347, 361 (1967) (holding warrantless bugging of phone booth conversation unconstitutional because even though "booth is 'accessible to the public' at other times, . . . it is a temporarily private place whose momentary occupants' expectations of freedom from intrusion are recognized as reasonable."). Although the Supreme Court has avoided addressing the Fourth Amendment implications of body cavity searches, U.S. v. Montoya-Hernandez, 473 U.S. 531, 541 n.3 (1985), other courts have long required probable cause for such searches even when conducted at the border. *See*, *e.g.*, Blackford v. U.S., 247 F.2d 745, 753 (9th Cir. 1957)(body cavity search at border permissible upon probable cause–"precise knowledge of what, and how much was where"–if conducted reasonably).

[281] Terry v. Ohio, 392 U.S. 1, 27 (1968)(holding patdown requires reasonable suspicion). The legality of electronic frisks has yet to be taken up directly, but because they reveal items underneath one's clothing, they presumably would require at least reasonable suspicion. *See* ABA STANDARDS, *supra* note 16, at 82-96 (discussing standards regulating "detection devices").

[282] Donovan v. Dewey, 452 U.S. 594, 603 (1981)(requiring that inspection programs for coal mines provide "a constitutionally adequate substitute for a warrant); Marshall v. Barlow's, Inc. 436 U.S. 307, 324 (1978)(requiring administrative warrant for nonconsensual factory inspections); Martinez-Fuerte, 428 U.S. 543, 556 (1976)("It is agreed that checkpoint stops are 'seizures' within the meaning of the Fourth Amendment."). Note also that the public camera surveillance rating was similar to the rating received for the scenario involving the junkyard search, which is also governed by the Fourth Amendment. New York v. Burger, 482 U.S.

The intrusiveness ratings for the other scenarios involving cameras fell within the range demarcated by the latter three scenarios, with one exception. While camera surveillance of national monuments (M=20), transportation centers (M=20) and stores (M=26) received relatively low intrusiveness ratings, covert camera surveillance of the public streets (M=42) received a significantly higher rating. At the same time, that rating is significantly lower than the rating for overt camera surveillance. Apparently, as suggested throughout this article, knowledge that cameras are present triggers a greater feeling of intrusion than knowledge that cameras *might* be present.

Also of note are the intrusiveness ratings of three government actions the Court has declared are not searches: helicopter overflights 400 feet above the backyard (M=50), being followed by a police officer (M=50), and curbside searches of garbage (M=51).[283] These three scenarios were perceived to be as intrusive, statistically speaking, as public camera surveillance, and significantly more intrusive than the administrative inspections and the roadblock.

Should these three findings call into question the Court's determinations that administrative inspections and roadblocks are Fourth Amendment events, or instead lead us to question the holdings that helicopter overflights, garbage scavenging and police tailing (and, by implication, public camera surveillance) are not? Consistent with the thesis of this article, I believe we should be more concerned about the second conclusion. While, as noted earlier,[284] the Court seems to place all police actions that are not physically invasive and that occur outside the home outside the Fourth Amendment as well, the subjects were apparently more attuned to the offensive nature of government helicopters hovering over one's yard, agents going through one's intimate, albeit abandoned, items, and officers stalking citizens. At the same time, the lower ratings the sur-

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691 (1987)(applying *Dewey* to inspections of junkyards for stolen auto parts).

[283] Florida v. Riley, 488 U.S. 445 (1989)(helicopter 400 feet above backyard); Michigan v. Chesternut, 486 U.S. 567 (1988); California v. Greenwood, 486 U.S. 35 (1988)(searching garbage separated from other garbage).

[284] *See supra* text accompanying notes 243-47.

vey participants assigned to business safety inspections and brief car detentions are not inconsistent with the view that the Fourth Amendment is implicated by these actions, as they are still significantly higher than searching through foliage in a public (M=8). Put simply, the participants are better than the Court at identifying expectations of privacy *society* is prepared to recognize as reasonable.

3. The Relevance of Empirical Findings

As Professor Schumacher and I noted in connection with the previous study, there are several potential methodological problems with this kind of survey.[285] These "internal validity" and sampling issues will not be rehearsed here. It suffices to say that, despite some reservations, we concluded in the earlier work that this type of survey "accurately measured how people rank the intrusiveness of various search and seizures."[286]

Assuming the same conclusion can be reached about the present study, it is still important to revisit one central issue: Why should we care, for constitutional purposes, what ordinary people think about the intrusiveness of various police actions? One easy answer is the one already given: the Court has told us society's views are relevant by defining the Fourth Amendment in terms of "expectations of privacy society is prepared to recognize as reasonable."[287]

But perhaps this language should not be interpreted literally. There are a number of reasons why it may be a bad idea to do so. These reasons are all complicated, and will only be briefly described here. I will respond to these objections in an equally brief, and I have to admit, incomplete fashion.

One reason to avoid a literal reading of *Katz* is the variability and manipulability of public attitudes. As many commentators have pointed out,[288] technology and modern social practices are rapidly reducing everyone's privacy and everyone's expectations thereof, with the result that a literal construction of *Katz* would produce an ever-shrinking Fourth Amendment. Resort to empirical data about society's attitudes in defining the Fourth Amendment's scope would probably only accelerate that trend, and destabilize search and seizure law at the same time.

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[285] Slobogin & Schumacher, *supra* note 270, at 743-51.

[286] Slobogin & Schumacher, *supra* note 270, at 744.

[287] Katz v. United States, 389 U.S. 347, 361 (1967)(Harlan, J., concurring).

[288] *See*, e.g, Sundby, *supra* note 255, at 23 (stating the "overall decline in the Amendment's protections . . . will only worsen as the inevitable march of government regulation further blurs the notion of what is private and as technological advances enable the government to invade privacy in more pervasive, but physi-

Research such as that described here, however, only provides information about relative intrusiveness in society's eyes. It does not tell the Court where to position the Fourth Amendment threshold. The decision as to what *level* of privacy expectations is accorded constitutional protection can still be a judicial, normative one that has precedential impact. Nor are society's views likely to change once the Court sets the Fourth Amendment threshold, because the Court's pronouncement will reinforce those views. If, however, those views nonetheless change substantially–for instance, if twenty years from now, government-run CCTV is seen as much less intrusive than searching foliage in a public park, or much more intrusive than a frisk–then Fourth Amendment analysis should probably change with them. After all, that is what happened when *Katz* declared that non-trespassory electronic surveillance is a search after forty years of precedent saying otherwise.[289]

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cally less intrusive, ways."); Shaun B. Spencer, *Reasonable Expectations and the Erosion of Privacy*, 39 SAN. DIEGO L. REV. 843 (2002)(pointing out that the "embedded imprecision" of the privacy concept and the incremental "internalization" of new privacy norms dictated by technological and other innovations operate together to erode privacy boundaries); Duarte v. R., 1 S.C.R. 30, para 24 (1990)("The very efficacy of electronic surveillance is such that it has the potential, if left unregulated, to annihilate any expectation that our communications will remain private.").

[289] Monahan and Walker argue that methodologically sound research that is relevant to a given legal issue should not only be considered by the courts, but should operate as "social authority," just as caselaw and statutes are considered legal authority. John Monahan & Laurens Walker, *Social Authority: Obtaining, Evaluating, and Establishing Social Science in Law*, 134 U. PA. L. REV. 477, 488 (1986). On that assumption, if the relevant social science changes, the law based on it should change as well.

> Like legal precedent, research findings can become outdated as circumstances change. A survey of the kinds of films that members of a community found "patently offensive" in the 1950's, for example, might have

A second objection to a literal interpretation of *Katz's* expectation of privacy language is that, at the margins, it might render nugatory the language and history of the Fourth Amendment. Consider CCTV as an example. One could argue, as suggested earlier,[290] that regardless of its relative intrusiveness according to the community, CCTV does not constitute either a "search" or a "seizure" of "persons, papers, houses and effects" as those terms are normally understood. One could also plausibly contend that it is not the type of government activity that even remotely concerned the framers. Yet, as developed further in Part IV,[291] close scrutiny of a person, whether in public or private, can easily be called a "search." And while it is true that physical searches, particularly of homes, were the main concern of the framers, surveillance of the streets by British soldiers was a major irritant for the colonists.[292] Ulti-

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> little value in the context of an obscenity prosecution in the 1980's. A third way, therefore, that courts could evaluate a piece of social science research would be to gauge the extent to which the people and situations studied in the research resemble those involved in the controversy at issue, and the extent to which the passage of time may have attenuated the findings.

Id. at 507 (footnote omitted).

[290] *See supra* text accompanying notes 239-253.

[291] *See infra* text accompanying notes 421-422.

[292] Anonymous Account of the Boston Massacre, *at* http://odur.let.rug.nl/~usa/D/1751-1775boston~/anon.htm (stating that "the challenging of the inhabitants by sentinels posted in all parts of town . . . occasioned many quarrels and uneasiness"); *see also* Westin, *supra* note 115, at 57-58 (noting that "[t]he whole network of American constitutional rights . . . was established to curtail the ancient surveillance claims of governmental authorities."); Don B. Kates, *The Second Amendment and the Ideology of Self-Protection*, 9 CONST. COMMENTARY 87, 103 (1992)(stating that, for the Founders, "the very idea of empowering government to place an armed force in constant watch over the populace was vehemently rejected as a paradigm of abhorrent French despotism," and noting that organized police forces were resisted in colonial times). In correspondence with the author, Professor Davies, who has closely studied the Fourth Amendment's history, emphasized the last fact, noting that, other than "snooping" by British informers (which occasioned hostility among the colonists), there was no one available to conduct surveillance: "the constable had better things to do (trying to make a living) than stand around looking for hints of crime." E-mail from Thomas Davies, Professor of Law, University of Tennessee School of Law, to Christopher Slobogin, Professor of Law, the University of Florida School of Law (July 8, 2002, 2:16 PM CST)(on file with author). Davies also noted the lack of surveillance technology in colonial times and pointed out that "surveillers would have had more difficulty

mately, however, the strength of this second objection depends upon how important "plain meaning" and original intent are to Fourth Amendment analysis and upon what these phrases mean, topics well beyond the scope of this article.[293]

A related and final objection to taking *Katz* literally is that courts should consider *only* these latter types of factors because courts are, by tradition if not by definition, nonmajoritarian institutions. While some constitutional issues–the definition of obscenity comes to mind[294]–are largely determined by community views, most such issues–compulsion for Fifth Amendment purposes,[295] speech under the First Amendment,[296] probable cause for Fourth Amendment purposes[297]–are not.[298] At the least, shouldn't the courts ignore community norms that are inconsistent with principles derived from other sources when determining the scope of core constitutional concepts?

This question is also huge and difficult, and the answer depends much upon context.[299] A recent article by Robert

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blending into the smaller, closer social settings of that time." *Id.*

[293] *See generally* David Sklansky, *The Fourth Amendment and the Common Law*, 100 COLUM. L. REV. 1734 (2000):

> [A]nchoring the Fourth Amendment in common law will do little to make it more principled or predictable, in part because common-law limits on searches and seizures were thinner, vaguer, and far more varied than the Court seems to suppose. What the common law has of value to offer Fourth Amendment law is what it has to offer constitutional law more generally: not its rules but its method.").

Id. at 1734.

[294] Miller v. California, 413 U.S. 15, 24 (1973)(whether a work appeals to the "prurient interest" is to be defined by "community standards"); *see also* Atkins v. Virginia, 122 S.Ct. 2242, 2244 (2002)(ruling that the definition of cruel and unusual punishment under Eighth Amendment is dependent upon consensus of public, judges, legislators and scholars).

[295] *See, e.g.*, Miranda v. Arizona, 384 U.S. 436 (1966).

[296] *See, e.g.*, Tinker v. Des Moines Indep. Cmty. Sch. Dist., 393 U.S. 503 (1969).

[297] *See, e.g.*, Illinois v. Gates, 462 U.S. 213 (1983).

[298] *Cf.* West Virginia State Bd. of Educ. v. Barnette, 319 U.S. 624, 638 (1943)("One's right to life, liberty, and property, to free speech, a free press, freedom of worship and assembly, and other fundamental rights may not be submitted to vote; they depend on the outcome of no elections.").

[299] I have argued, for instance, that public opinion is of very limited relevance in designing provisions of the substantive criminal law. Christopher Slobogin, *Is Justice Just Us? Using Social Science to Inform Substantive Criminal Law*, 87 J.

Post, a noted scholar on privacy issues, provides the beginning of a response, a response pertinent to the other two objections as well. Post describes three possible "concepts of privacy": privacy as the control of knowledge; privacy as a protector of dignity; and privacy as a means of implementing freedom.[300] The first concept, he argues, does not really raise a privacy question at all, because it has more to do with disclosure of information rather than with intrusion, and the third he sees as "an argument for liberal limitations on government" such as those imposed by cases like *Roe v. Wade*.[301] The form of privacy he views as most relevant to Fourth Amendment issues is privacy as dignity, which grounds privacy "in social forms of respect that we owe each other as members of a common community,"[302] and "locates privacy in precisely the aspects of social life that are shared and mutual."[303] He asserts that, when privacy "is understood as a form of dignity, there can ultimately be no other measure of privacy than the social norms that actually exist in our civilization."[304] If that is so, then Fourth Amendment privacy depends upon measurements of societal norms regarding privacy expectations, which is what the surveys described above attempt to measure.

There is also an institutional reason to align Fourth Amendment expectations of privacy with society's views on the matter. As stated in the article describing the first study, "[a]ssuming valid data showing that the community and the Court think differently, the Court's continued adherence to its own views, through what has aptly been called normative constitutional fact-finding, would further strain its credibility."[305] Ultimately, ignoring such data and the community views it

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CRIM. L. & CRIMINOLOGY. 315 (1996).

[300] Robert C. Post, *Three Concepts of Privacy*, 89 GEO. L.J. 2087 (2001).

[301] *Id.* at 2087, 2087-92, 2096-98.

[302] *Id.* at 2092.

[303] *Id.* at 2094.

[304] *Id.*

[305] Slobogin & Schumacher, *supra* note 270, at 753 (footnote omitted)(relying on David L. Faigman, *"Normative Constitutional Fact-finding": Exploring the Empirical Component of Constitutional Interpretation*, 139 U. PA. L. REV. 541, 581-88 (1991)).

represents "undermines the Court's legitimacy."[306]

D. Summary

A good case can be made for the conclusion that overt CCTV operated by the government in public spaces ought to be subject to constitutional regulation. The source of such regulation could be the First Amendment, the right to travel found in the Due Process Clause, the general right to privacy, or the Fourth Amendment. CCTV can intimidate those engaging in political expression, inhibit public movement and repose, affect one's public personality, accelerate normalization and, if the empirical study reported here is any indication, be as intrusive as police actions which the Supreme Court has said implicate the Fourth Amendment. Although the interests infringed by CCTV are somewhat disparate, they can all be subsumed under the umbrella interest in public anonymity–the right to be free of intensive government scrutiny even in public, absent suspicious conduct.[307]

Of the various constitutional bases that could implement this right to anonymity, I prefer the Fourth Amendment, for two related reasons. First, it is the amendment that traditionally has been applied to police investigation techniques, and CCTV is such a technique. The Court has suggested that when two or more constitutional provisions are implicated, the one most directly implicated should apply.[308] Second, Fourth Amendment analysis provides a better framework for regulating CCTV than the other constitutional doctrines. If a government action infringes the First Amendment, the Due Process Clause, or the general right to privacy, its permissibility depends upon whether the government has a "compelling" or "substantial" interest in pursuing the action, concepts that are very ill-defined.[309] Depending upon the interest involved, the action's legitimacy may also depend on how "necessary" it is to accomplish that interest, again a nebulously defined inquiry.[310] Although essentially the same analysis occurs under the Fourth Amendment, its greater flexibility and its better-developed substantive and procedural rules provide a more concrete regulatory template, as Part III demonstrates.

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[306] *Id.*

[307] Note, however, one difference between a right to anonymity and the other rights. Each of the other rights could be said to be inhibited by crime at least as much as by cameras (consider in particular the right to movement and repose). Thus, one could argue they are infringed if government does *not* install CCTV, at least in high crime areas. *See infra* Part IIIA. The right to anonymity is more clearly independent of the fear of crime; it is *always* implicated by CCTV.

[308] Albright v. Oliver, 5120 U.S. 266, 273 (1994)("[W]here a particular amendment provides an explicit textual source of constitutional protection' against a particular sort of government behavior, 'that Amendment, not the more generalized notion of 'substantive due process,' must be the guide for analyzing these claims'" (quoting Graham v. Connor, 490 U.S. 386, 395 (1989)).

III. IMPLEMENTING THE RIGHT TO PUBLIC ANONYMITY

I propose that constitutional regulation of government efforts to pierce public anonymity through CCTV consist of four components. First, law enforcement should have to justify both the establishment of a particular camera system and its use to scrutinize particular individuals. Second, it should have to develop policies regarding the procedure for conducting camera surveillance. Third, it should have to develop policies regarding storage and dissemination of recorded materials to other entities. Finally, and most importantly, it should be accountable to entities outside law enforcement when it fails to follow these three requirements.

Even this barebones description of the regulatory scheme sounds decidedly legislative in nature, and therefore arguably something the judiciary is not equipped to fashion. But, as the following discussion will make clear, the judicial objective should be merely to establish the regulatory framework; law enforcement agencies and the political process can fill in the details. Erik Luna has described the phenomenon of "constitutional roadmapping," in which the courts, in striking down governmental laws or censoring conduct of government agents, suggest constitutionally permissible alternative courses of action.[311] The idea behind such decisions is to engage in a dialogue with other decision-makers in the executive and legislative branches, as well as with the citizenry.[312] As Luna says, "[r]oadmaps openly share constitutional concerns with those institutions charged with making and enforcing law, refracting issues with judicial insight rather than merely reflecting them back to the political branches."[313] Although Luna believes that judicial resort to such roadmaps should be rare, he also states that they are most likely to be useful in individual rights cases involving new practices where the need for clear rules is high, a scenario which resonates with the advent of CCTV.[314] The discussion below tries to set out a constitutional roadmap for public camera surveillance, relying on Fourth Amendment precedent for guiding principles and the ABA's Standards Relating to Technologically-Assisted Physical Surveillance for slightly more specific recommendations.[315]

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[309] *See generally* CHEMERINSKY, *supra* note 214, at 764-768

[310] *Id.*

[311] Erik Luna, *Constitutional Roadmaps*, 90 J. CRIM. L. & CRIMINOLOGY. 1125,

A. *Justification*

The government should be required to justify its use of cameras at two different levels. First, it should have to justify the placement of the cameras it seeks to install. Second, it should have to account for any use of the camera to individualize its inspection of particular individuals. Precedent for requiring both types of justifications comes from the Supreme Court's cases on roadblocks, which, it will be remembered, were viewed by the subjects in the study reported above to be significantly less intrusive than CCTV.

1. Justifying Camera Location

One might think that the cost of camera systems, alone, would keep CCTV from spreading beyond those areas with the

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1193 (2000).

[312] *Id.* at 1185-87.

[313] *Id.* at 1193.

[314] *Id.* at 1200-06.

[315] *See generally* Christopher Slobogin, *Technologically-Assisted Physical Surveillance: The American Bar Association's Tentative Draft Standards*, 10 HARV. J. L. & TECHNOLOGY 383 (1997)(describing the membership and work of the Task Force and the Standards Committee in developing the Standards).

highest crime rates. But, if Great Britain's experience is any indication, cameras are likely to be seen as a cheap, effective method of deterring and detecting crime, whether or not that is actually the case.[316] Thus, their proliferation beyond the most dangerous areas is inevitable, unless limitations are imposed.

The precedent for that limitation comes from an unlikely source, the Supreme Court's roadblock jurisprudence.[317] In the four cases in which the court has pronounced on the constitutionality of roadblocks, the government has prevailed three times. In *United States v. Martinez-Fuerte*,[318] the Court upheld checkpoints established near the Mexican border that were designed to deter and detect illegal immigration. In *Michigan v. Sitz*,[319] it sanctioned roadblocks to deter drunken driving. And in *Delaware v. Prouse*,[320] it indicated in dictum that license checkpoints would be constitutional as well (in the course of holding that random license checks of individual cars are unconstitutional).[321]

In a case decided just last term, however, the Court drew the line at roadblocks that are set up merely to help the government catch more criminals. In *Edmond v. Indianapolis*,[322] in an opinion by Justice O'Connor, the Court held unconstitutional a "narcotics checkpoint," stating "[w]e have never approved a checkpoint program whose primary purpose was to detect evidence of ordinary criminal wrongdoing."[323] *Martinez-Fuerte*, O'Connor stated, was grounded on the "formidable law enforcement problems" connected with "effectively containing illegal immigration at the border," the "impracticality of the particularized study of a given car to discern whether it was transporting illegal aliens," and the traditional leeway given the government's efforts at protecting the "integrity of the border."[324] The sobriety checkpoints in *Sitz* were permissible because they were aimed at reducing "the immediate vehicle-bound threat to life and limb" posed by the presence of drunk drivers on the highways.[325] And license checkpoints of the type discussed in *Prouse*, O'Connor stated, are meant to maintain highway safety through ensuring that drivers are qualified and that their vehicles are fit for safe operation.[326] None of these roadblock variants, the *Edmond* majority emphasized, are established to further the government's "general interest in crime control."[327] In the latter situation, an "individualized suspicion" requirement prevails.[328] Otherwise, "the Fourth Amendment would do little to prevent such intrusions from becoming a routine part of American life."[329]

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[316] *See supra* note 94; *see also* Davies, *supra* note 38, at 150 (observing that every year between 230 and 450 million dollars is spent on CCTV in the United Kingdom, despite its uncertain effectiveness).

[317] Note that, given the intrusiveness ratings of the coal mine and factory inspection scenarios, *see supra* p. 277 Table 1, another source of precedent would be the closely regulated industry cases. *See* CHARLES H. WHITEBREAD & CHRISTOPHER SLOBOGIN, CRIMINAL PROCEDURE: AN ANALYSIS OF CASES & CONCEPTS § 13.03(a) (4th ed. 2000)(describing the cases). But these decisions deal with specific industries, not the public at large, so roadblocks provide a closer analogue to CCTV. It is worth noting, however, that the pervasively regulated industry cases require the government to show a "substantial" interest in the activity being regulated, and also require limitations on when and how searches can be carried out that provide "a constitutionally adequate substitute for a warrant." Dewey v. Donovan, 452 U.S. 594, 602-03 (1981).

[318] 428 U.S. 543, 566-67 (1976).

[319] 496 U.S. 444, 455 (1990).

[320] 440 U.S. 648, 657 (1979).

[321] *Prouse*, 440 U.S. at 663 ("This holding does not preclude the State of Delaware or other States from developing methods for spot checks that involve less intrusion or that do not involve the unconstrained exercise of discretion. Questioning of all oncoming traffic at roadblock-type stops is one possible alternative.").

[322] 531 U.S. 32 (2000).

There is no doubt that the "primary purpose" of CCTV is to implement the government's general interest in crime control. If we assume, as concluded above, that CCTV is regulated by the Fourth Amendment, *Edmond* could be read to *prohibit* government use of cameras, unless it first develops individualized suspicion. That would effectively eliminate CCTV as a deterrent and seriously limit its usefulness as an investigative device, except in those rare instances when individualized suspicion is developed in other ways and cameras are needed to provide corroboration or help nab a suspect who has eluded police.

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[323] *Edmond*, 531 U.S. at 41.

[324] *Id.* at 38.

[325] *Id.* at 43.

[326] *Id.* at 39.

[327] *Id.* at 43-44.

[328] *Id.* at 44.

[329] *Id.* at 42. The same Term the Court struck down a drug-testing policy aimed at pregnant women, in large part because the "primary purpose" of the program was "the threat of arrest and prosecution in order to force women into treatment." Ferguson v. City of Charleston, 532 U.S. 67, 84 (2001).

More generously, *Edmond* could be interpreted to permit suspicionless public camera surveillance if the government meets the requirements imposed by *Martinez-Fuerte* or *Sitz*. In other words, only where it can be shown that there are "formidable law enforcement problems" associated with using traditional methods of investigation (as in the case of discerning illegal immigrants in cars) or an "immediate hazard to life and limb" posed by a specified group of potentially dangerous people (as with drunk drivers) should CCTV be permissible.

Where might such circumstances exist? Areas with a high magnitude of serious crime are the best candidates. A significant amount of crime suggests that traditional methods are not working, and if much of the crime being committed is violent or similarly serious, it presents an immediate hazard proportionate to that posed by drunk drivers.

Taking a cue from the Court's cases, it is possible to get even more specific about the degree of harm necessary to justify brief suspicionless surveillance. In *Sitz* the Court gave as one of the reasons the checkpoint in that case was reasonable the fact that 1.6% of the drivers who went through the roadblock in that case were drunk, and also noted that .12% of those stopped at the checkpoint in *Martinez-Fuerte* were illegal immigrants.[330] The latter percentage might presumptively be considered the threshold at which government can act, for two reasons. First, it justified only the barest of seizures, one that lasted at most five seconds and that often consisted merely of getting the vehicle to slow down so that border agents could look inside.[331] Anything less intrusive would probably not have implicated the Fourth Amendment at all; anything more should require at least as much justification as the government proffered in *Martinez-Fuerte*. Second, the Court has indicated it is leery of suspicionless seizures that inconvenience large numbers of individuals for very little gain. In finding unconstitutional the random license checks at issue in *Prouse*, it noted that "[i]t seems common sense that the percentage of all drivers on the road who are driving without a license is very small and that the number of licensed drivers who will be stopped in order to find one unlicensed operator will be large indeed."[332] Although *Prouse* went on to sanction nonrandom *roadblocks* for license check purposes,[333] this type of seizure, *Edmond* held, is permitted only when it is directly related to highway safety, and not set up with the primary purpose of crime control. In the latter instance, *Prouse* and *Edmond* in combination would seem to say that hit rates lower than those obtained in *Martinez-Fuerte* cannot justify searches or seizures by the government.

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[330] *Sitz*, 496 U.S. at 455.

[331] *Martinez-Fuerte*, 428 U.S. at 546 ("The 'point' agent standing between the two lanes of traffic visually screens all northbound vehicles, which the checkpoint brings to a virtual, if not a complete, halt. Most motorists are allowed to resume their progress without any oral inquiry or close visual examination.").

In somewhat arbitrary terms, then, CCTV might only be permitted in areas where more than one person in 1000 will commit violent or similarly serious crime.[334] It might also be permissible in more idiosyncratic circumstances. For instance, cameras could perhaps be positioned in areas that are not particularly dangerous, but are predicted to be because of some imminent threat to life and limb, such as terrorism.[335] Study

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[332] *Prouse*, 440 U.S. at 659-60.

[333] *Id.* at 663.

[334] It might be noted that the "hit rate" for the checkpoint declared unconstitutional in *Edmond* was much higher. *Edmond*, 531 U.S. at 35 (9% of those who were stopped at roadblock were guilty of some crime). But it appears that the crimes detected by the *Edmond* checkpoint were primarily low-level drug violations, not violent offenses. *Id.*

[335] *See id.* at 44 ("the Fourth Amendment would almost certainly permit an appropriately tailored roadblock set up to thwart an imminent terrorist attack or to catch a dangerous criminal who is likely to flee by way of a particular route"). Cameras might also be set up in certain areas, but switched off except during particular times or events. *See Testimony of Charles H. Ramsey*, Chief of Police, D.C. Metropolitan Police Department, at Hearing on Privacy vs. Security: Electronic Surveillance in the Nation's Capital, before House Comm. on Gov't Reform, Subcomm. on Dist. Colum., March 22, 2002, at 3 (on file with author):

> Access to outside systems is controlled by the agency that operates the cameras, not the Metropolitan Police Department. The only way the MPD

of crime patterns might also identify some locales that are particularly likely to attract certain types of serious criminal activity or harbor dangerous criminals.[336]

A corollary question is: Who decides whether crime in a given area is of sufficient magnitude to warrant CCTV–a court, a legislature, the police or the public? In rejecting a judicial determination of a roadblock's "effectiveness" at dealing with drunk driving, the Court in *Sitz* stated it would not "transfer from politically accountable officials to the courts the decision as to which among reasonable alternative law enforcement techniques should be employed to deal with a serious public danger."[337] It went on to conclude that, "for purposes of Fourth Amendment analysis, the choice among such reasonable alternatives remains with the governmental officials who have a unique understanding of, and a responsibility for, limited public resources, including a finite number of police officers."[338]

While this language appears to leave quite a bit up to police discretion, it also endorses two significant limitations on that discretion. First, courts are not left out of the picture entirely. They are still permitted to intervene when the alternative chosen by the police is not "reasonable." Second, decisionmaking authority is not delegated to any or every officer, but rather only to "politically accountable" officials who have "responsibility for limited public resources." In other words, the chief of the department ought to be responsible for these decisions. That conclusion makes sense, given that official's better access to the relevant statistics and the number of people affected by the decision.[339]

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will be able to access the [schools'] video system is if school officials ask us to do so, and then provide the 'key' to grant us access.

[336] *Cf.* Erik Luna, *Transparent Policing*, 85 IOWA L. REV. 1107, 1173 (2000) ("Criminologists have offered geographic theories of target hunting, fugitive migration, crime trips, escape routes, and repeat location victimization, as well as theories of aggregate behavior based on market distribution, crime displacement, and police-crackdown effects.").

[337] *Sitz*, 496 U.S. at 453.

[338] *Id.* at 453-54.

[339] The commentary to the ABA Standards sets out in more detail reasons to

This last observation also raises the issue of whether the public should be involved in the decisionmaking to any extent. The Court has not specifically addressed this question. But William Stuntz has argued that *Sitz* stands for the proposition that the public should be *directly* involved in such cases.[340] More specifically, he posits that *Sitz* indicates the Court's willingness to abandon both the individualized suspicion and special needs models of the Fourth Amendment in favor of what he calls a "politics model" when searches or seizures affect large groups of people, because a group, unlike the solitary suspect who is usually the target of searches and seizures, can "throw the rascals out" if it does not like a particular technique.[341]

If Stuntz is right about the Court's underlying motivation in *Sitz*, the practical problem becomes how to implement this "politics model." The typical electoral process, which is likely to involve many issues, is not an effective way for the group to make its attitudes toward a particular police action known. A more satisfactory implementation of the model would be to require direct input on the establishment of camera systems from those who will enjoy the benefit and bear the brunt of the surveillance. Such input can also provide the police with information about specific crime problems and the type of surveillance that might prove most useful.[342] It is instructive that

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involve politically accountable decisionmakers:

> First, these decisionmakers are more representative of the public than is a supervisor or field officer. In addition a decision which is likely to affect large numbers of people for a long period of time should not be made by a low-level official, regardless of the latter's expertise and knowledge of local conditions. Finally, only at the departmental level are the relevant statistics necessary for documenting a crime problem likely to be available.

ABA STANDARDS, *supra* note 16, at 69.

[340] William J. Stuntz, *Implicit Bargains, Government Power, and the Fourth Amendment*, 44 STAN. L. REV. 553 (1992).

[341] *Id.* at 588.

[342] One question raised by this comment is whether the public can "force" the installation of cameras when it is not warranted under the foregoing analysis. Professors Meares and Kahan argue that when "the community has internalized the burden that a particular law imposes on individual freedom" courts "should presume that the law does not violate individual rights." Tracey L. Meares &

several participants at the International Association of Police Chiefs meeting on CCTV were adamant about involving the affected community in decisions involving cameras.[343]

The American Bar Association's Standards on Technologically-Assisted Physical Surveillance address all of these concerns about the decision to establish cameras. They state that CCTV "is permissible when a politically accountable governmental authority concludes that the surveillance will not view a private activity or condition and will be reasonably likely to achieve a legitimate law enforcement objective."[344] The latter phrase is defined to require "articulable reasons" for concluding that the surveillance will lead to the detection, deterrence or prevention of crime[345] which, after *Edmond*, should require a demonstration that a significant violent crime problem will be addressed by the surveillance. The Standards also require that "where deterrence rather than investigation is the primary object, the public to be affected by the surveillance . . . [should have] the opportunity, both prior to the initiation of the surveillance and periodically during it, to express its views of the surveillance and propose changes in its execution, through a hearing or some other appropriate means."[346] These are the kinds of general guidelines the courts can fashion based on Fourth

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Dan M. Kahan, *The Wages of Antiquated Procedural Thinking: A Critique of Chicago v. Morales*, 1998 U. Chi. Legal F. 197, 209. But the "community" is hard to gauge. Compare Remarks of Joseph Dunne, *supra* note 86, at 21 ("Virtually every housing development in New York City has requested a CCTV monitoring program") with Burrows, *supra* note 56, at 1082 (describing how cameras were installed when long-term, largely elderly residents became concerned about crime as black and hispanic individuals moved nearby). And while arguments can be made that community views are dispositive on the privacy issue, *see supra* text accompanying notes 286-306, it is clear that Fourth Amendment reasonableness is ultimately a judicial matter. Nonetheless, if a "well-informed" community (*cf. supra* note 144), clearly favors cameras, a (rebuttable) presumption in their favor may be a workable approach.

[343] *See, e.g.*, Remarks of Lessing Gold, *supra* note 99, at 19 (stating "we must form a coalition or partnership with law enforcement, city council, citizens groups and private sector"); Jerry Semper (Maryland Police Trainer), at SIA & IACP Meeting, *supra* note 62, at 55 (stating "community inclusion is the most important aspect of what we've got going on here").

[344] ABA STANDARDS, *supra* note 16, at 16 (Standard 2-9.3(b)(i)).

[345] ABA STANDARDS, *supra* note 16, at 14-15 (Standard 2-9.2(d)).

[346] ABA STANDARDS, *supra* note 16, at 16 (Standard 2-9.3(b)(ii)).

Amendment principles.

2. Justifying Individualization of Surveillance

If the *Edmond* standard is met for a particular area, then CCTV cameras can be established there consistent with the Fourth Amendment. Randomly panning the camera to scan the streets ought to be permissible on the same showing, just as the brief initial stops in *Martinez-Fuerte* and *Sitz* were permitted without any individualized suspicion. But what if the camera operators want to record or closely observe a particular person's actions, using zoom capacity, or simply through prolonged or repeated surveillance? For instance, the only comprehensive study of CCTV operator behavior found that in approximately 600 hours of observation almost 900 "targeted surveillances" of more than a minute occurred, with roughly three out of ten lasting between two minutes and six minutes, and one-quarter lasting longer than six minutes.[347]

Here again, the roadblock cases lead the way. In *Sitz*, the Court cautioned that it was addressing "only the initial stop of each motorist passing through a checkpoint and the associated preliminary questioning and observation by checkpoint officers. Detention of particular motorists for more extensive field sobriety testing may require satisfaction of an individualized suspicion standard."[348] Similarly, in *Martinez-Fuerte*, the Court felt it important to note that the percentage of illegal immigrants discovered at the "secondary checkpoint" to which motorists were sent after the initial stop was close to 20%,[349] a figure that demonstrates a relatively high level of suspicion associated with this seizure, which amounted to a five-minute document check.[350]

These cases suggest that something more than an inchoate hunch ought to form the basis for intense scrutiny of individuals. Certainly use of audio capacity to eavesdrop on private conversations on the street ought to be based on individualized suspicion, presumably at the probable cause level.[351] Likewise, if the camera is used to intrude into the interior of the home, probable cause should be required.[352]

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[347] NORRIS & ARMSTRONG, *supra* note 44, at 150.

[348] *Sitz*, 496 U.S. at 451.

[349] *Martinez-Fuerte*, 428 at 564 n.17.

[350] *Id.* at 547.

Short of these two situations, determining precisely when surveillance progresses from random scanning or casual surveillance to observation intense enough to warrant individualized suspicion may be difficult. But it will not be any more difficult than defining when a nonseizure becomes a seizure, or determining when a stop requiring reasonable suspicion becomes an arrest requiring probable cause, issues with which the Supreme Court has grappled–not always satisfactorily–on several occasions.[353] Two factors that ought to be relevant here, according to the ABA Standards, are "the extent to which the surveillance technology enhances the law enforcement officer's natural senses" and "the extent to which the surveillance of subjects is minimized in time and space."[354] If the camera's zoom or recording capacity allows operators to obtain information that would be difficult for an observer on the street to discern (such as a title on a book cover, or a biometric match with official records), then reasonable suspicion ought to be required; the same standard ought to be met if the cameras intentionally follow an individual for a prolonged period of time (say, more than the five minutes involved at the secondary checkpoint in *Martinez Fuerte*) or on several separate occasions (analogous to Rehnquist's bar example). Even a targeted surveillance lasting only a minute should require an articulated reason beyond mere curiosity (such as a signal from one of the automated systems described earlier[355]). The amount of individualized scrutiny permitted should be roughly proportionate to the amount of individualized suspicion the government has developed.

These latter proposals may appear to contradict the Court's decision in *Knotts*, upholding suspicionless tracking of public movements, using a beeper.[356] But the beeper only indicates the location of an object or person; video surveillance provides government with much more. More importantly, unlike the beeper, CCTV is overt, and thus generates a much greater panoptic effect. In any event, the results of the study reported earlier indicate that using a beeper to monitor travel was rated as almost as intrusive as a frisk,[357] suggesting that members of the public believe that prolonged tracking with a beeper is much more invasive than the Court seems to think.

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[351] *See supra* notes 167 & 280.

[352] *See supra* text accompanying notes 245-47.

[353] *See* WHITEBREAD & SLOBOGIN, *supra* note 317, § 3.02 (describing cases defining arrest) & § 11.02 (describing cases defining "seizure").

[354] ABA STANDARDS, *supra* note 16, at 12 (Standards 2-9.1(c)(ii)(E) & (F)).

[355] *See supra* text accompanying notes 44-47.

B. Execution Issues

The traditional search or seizure must not only be justified, but must also be executed in a reasonable manner. Based on the Court's caselaw, three execution issues associated with CCTV might rise to the constitutional level. They concern notice of the surveillance, the *types* of individuals to be observed, and termination of the surveillance.

1. Notice

If the point of CCTV is deterrence, as its advocates claim, then notification of those subject to camera surveillance is imperative.[358] Independently of this government interest, the Fourth Amendment also imposes a notice requirement. One of the primary reasons the Court gave in *Martinez-Fuerte* for finding the intrusion associated with the roadblocks in that case "minimal" was that, given the signs announcing their existence, motorists were "not taken by surprise;" further, because of this notification, they "know, or may obtain knowledge of, the location of the checkpoints and will not be stopped elsewhere."[359] The Court also stated that the intrusion was further minimized because the checkpoints appeared to be "duly authorized,"[360] another function signs can carry out.

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[356] *See supra* text accompanying notes 5-10.

[357] The beeper scenario received a mean intrusiveness rating of 63, while the frisk was rated at 68. *See* Table 1, *supra*, p. 277.

[358] Zuckerman, *supra* note 32 (quoting Simon Davies as saying that, in the United Kingdom, "with 1.5 million cameras about, the signs would be a public nuisance. So there's a general acceptance that wherever you go, you will have cameras pointed at you.").

[359] *Martinez-Fuerte*, 428 U.S. at 559.

Other Court decisions upholding suspicionless government actions have reaffirmed that notice is an important means of meeting Fourth Amendment requirements. For instance, in *Von Raab v. United States*,[361] involving drug testing of people who applied and worked for the customs service, the Court emphasized that "[e]mployees are . . . notified in advance of the scheduled sample collection, thus reducing to a minimum any 'unsettling show of authority' [citing *Prouse*] that may be associated with unexpected intrusions on privacy."[362] In *Wyman v. James*, permitting suspicionless welfare inspections of the home, the Court reasoned that providing a welfare recipient with advance notice of the inspection minimized the intrusion on privacy occasioned by the visit.[363] A number of Court cases also suggest that suspicionless searches are more palatable when the targets "consent" to them ahead of time, which is impossible without some sort of notice.[364]

2. Avoiding Discriminatory Surveillance

The second execution issue of possible constitutional significance is the selection of people to be observed by the cameras. Because no suspicion is required for camera surveillance as it is practiced today, and because even in the regime proposed here discretion as to whom to target is considerable, significant potential for discrimination exists. Indeed, research in the United Kingdom indicates that bias against minority groups is widespread among camera operators. Norris and Armstrong report, for instance, that the CCTV practices they observed involved a "massively disproportionate targeting of young males, particularly if they are black or visibly identifiable as having subcultural affiliations."[365] This differentiation, they concluded, was "not based on objective behavioural and individualised criteria, but merely on being categorised as part of a particular social group."[366]

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[360] *Id.*

[361] 489 U.S. 656 (1989).

[362] *Von Raab*, 489 U.S. at 672 n. 2 (citing Delaware v. Prouse, 440 U.S. 648, 657 (1979)).

[363] *Wyman*, 400 U.S. 309, 320-21 (1971).

[364] *See, e.g.*, United States v. Knights, 122 S. Ct. 587, 591-92 (2001)("The probation order [allowing suspicionless searches of probationers] clearly expressed the search condition and Knights was unambiguously informed of it"); United States v. Biswell, 406 U.S. 311, 316 (1972)(in holding that warrantless, suspicionless searches of gun dealers are permissible, stating "[w]hen a dealer chooses to engage in this pervasively regulated business and to accept a federal license, he does so with the knowledge that his business records, firearms, and ammunition will be subject to effective inspection.").

Such practices are probably unconstitutional. In *Whren v. United States*,[367] for instance, the Supreme Court signaled that searches and seizures that result from intentional racial discrimination could violate the Fourteenth Amendment's equal protection clause.[368] Although proof of such intent is notoriously difficult,[369] every step possible should be taken to assure that, in the words of the ABA Standards, "[t]he subjects of the surveillance [are] not . . . selected in an arbitrary or discriminatory manner."[370]

3. Termination of the Surveillance

The final execution issue that might trigger constitutional analysis concerns the termination of individual surveillance. The Supreme Court has emphasized the importance of durational limitations in many of its decisions defining the scope of the Fourth Amendment. In upholding the checkpoints in *Marti-*

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[365] NORRIS & ARMSTRONG, *supra* 44, at 150.

[366] *Id.* They also reported that 30% of targeted surveillances on black people, but only 13% of targeted surveillances on whites, lasted nine minutes or more, *id.*, and that blacks, teens and males were much more likely to be targeted for "no obvious reason" compared to other groups. *Id.* at 113-16 (Tables 6.5, 6.7, 6.9)(68% of blacks, compared to 35% of whites; 65% of teens, compared to 38% of ages 20-29; and 21% of ages 30-39; 47% of males, compared to 16% of females were targeted for "no obvious reason").

[367] 517 U.S. 806 (1996).

[368] *Whren*, 517 U.S. at 813 ("We of course agree with petitioners that the Constitution prohibits selective enforcement of the law based on considerations such as race.").

[369] *See generally*, David A. Harris, *When Success Breeds Attack: The Coming Backlash Against Racial Profiling Studies*, 6 MICH. J. RACE & L. 237 (2000)(detailing difficulties of proving violations of anti-discrimination laws).

[370] ABA STANDARDS, *supra* note 16, at 12 (Standard 2-9.1(d)(i)).

nez-Fuerte, it pointed out that the initial stop was extremely brief and that the secondary documentary check lasted only about five minutes.[371] In *Sitz* as well it found the initial stop, which averaged twenty-five seconds, to be a "minimal" intrusion, as "measured by the duration of the seizure and the intensity of the investigation."[372] The Court has also suggested, in *United States v. Sharpe*,[373] that stops based on reasonable suspicion should not last longer than fifteen minutes or twenty minutes in the absence of extenuating circumstances.[374]

When it comes to CCTV, these cases suggest that, in the ABA's language, the "surveillance should be limited to its authorized objectives and be terminated when those objectives are achieved."[375] And these cases could be mined for even more specific guidelines. Parallel to *Martinez-Fuerte* and consistent with the discussion concerning individualization of surveillance, camera operators could be required to terminate surveillance of a particular individual after five minutes unless reasonable suspicion develops.[376] In cases where such suspicion develops they could be required, parallel to *Sharpe*, to cease surveillance if probable cause doesn't develop within the next fifteen minutes, unless extenuating circumstances are present. These rules would have significant impact, since research indicates that CCTV surveillance can last well over five minutes even in cases where no deployment or arrest results.[377]

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[371] *Martinez-Fuerte*, 428 U.S. at 546-47.

[372] *Sitz*, 496 U.S. at 444.

[373] 470 U.S. 675 (1985).

[374] *Sharpe*, 470 U.S. at 686. Although the Court firmly rejected a bright-line 20-minute limitation on *Terry* stops as "clearly and fundamentally at odds with our approach in this area," *id.* at 686, it went on to justify the 20-minute stop in *Sharpe* on the ground that the defendant's evasions were in part responsible for the delay, and in part on the ground that the officer made diligent efforts to expedite the detention. *Id.* at 686-87.

[375] ABA STANDARDS, *supra* note 16, at 12 (Standard 2-9.1(d)(ii)).

[376] One objection to this rule is that, once made known to the citizenry (*see infra* text accompanying notes 415-16), it will be manipulated by perpetrators who will simply wait five minutes before engaging in any suspicious activity. However, the five-minute period need not start when the subject enters the camera area (and in fact shouldn't start at all unless something suspicious occurs, *see supra* text accompanying notes 347-57), which can be made clear in the rule disseminated to the public. Such a rule could simply read: "Camera operators will not focus on individuals unless they engage in activity indicative of criminal intent or are in need of aid, and will not continue surveillance unless criminal intent or harm is confirmed."

C. Storage and Dissemination of Recordings

A principal feature of CCTV that distinguishes it from ordinary, non-technological surveillance is the capacity to record observations. That capacity, plus the potential for abuse of the information so generated, is apparently of major concern to the public. The British survey quoted earlier indicated that many of the people questioned were very worried about misuse of the images recorded on CCTV,[378] an anxiety that is well-founded.[379] In the study conducted for this article, the scenario in which the tapes are not destroyed and instead are made available to the media and other government agencies "as needed" received a much higher intrusiveness rating (M=73) than the scenario in which tapes are destroyed within 96 hours (M=53).[380] Indeed, the former rating is statistically indistinguishable from the ratings associated with a body cavity search at the border and search of a bedroom, actions which require probable cause.

The Supreme Court has never addressed this particular type of privacy invasion as a Fourth Amendment matter. It came close in *Wilson v. Layne*,[381] where it held that the Fourth Amendment was violated by a "media ride-along" in which a newspaper reporter and photographer accompanied police on a search of a house. There, however, the issue was solely whether the presence of the media at the time of the search was unconstitutional; because the ride-along was not "in aid" of the search's execution, it unconstitutionally infringed on the privacy of the search's target.[382] *Layne* did not address the lawfulness of later dissemination of information about the search, whether acquired by the media at the time it occurs or from police at some later point. In the CCTV context, then, *Layne* at most would ban the media and other non-law enforcement entities from being present during the surveillance.

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[377] Norris & Armstrong found that somewhere around 12% to 15% of all targeted surveillances lasted over nine minutes (although that percentage increased to 25% for blacks), and that close to 40% lasted between two and six minutes. NORRIS & ARMSTRONG, *supra* note 44, at 150. Deployment resulted in only 5% of targeted surveillances, and arrest occurred in only 24% of deployments. *Id.* at 168.

[378] *See supra* text accompanying note 264-67 (showing, *inter alia*, that 72% believed that cameras "could easily be abused and used by the wrong people").

[379] *See Blackmail Concern as CCTV Video Sex Footage Goes on Sale*, THE HERALD (Glasgow), Nov. 27, 1995, at 5 (recounting sale of CCTV clips and public release of tapes showing a prostitute providing oral sex to a businessman and a man in a Santa hat stripping and then masturbating); WILLIAM G. STAPLES, EVERYDAY SURVEILLANCE: VIGILANCE AND VISIBILITY IN POSTMODERN LIFE 61-62 (2000)(describing the "potential market for tapes," and the high sales of the "Caught on Tape" and "Really Caught on Tape" videos).

[380] *See supra* Table 1, *supra* p. 277 .

[381] 526 U.S. 603 (1999).

Other Supreme Court decisions, however, suggest the Constitution requires law enforcement to keep a tight rein on information it accumulates. In *Whalen v. Roe*,[383] the Court considered a Fourteenth Amendment privacy challenge to a state statute that required physicians to submit information about patients' drug use to a state agency. Although the Court upheld the statute, it made much of the state's efforts to maintain security over the information submitted and the fact that the records were destroyed after five years.[384] At the end of its opinion, it also noted "the threat to privacy implicit in the accumulation of vast amounts of personal information in computerized data banks or other massive government files," and stated that "in some circumstances" a "duty to avoid unwarranted disclosures . . . arguably has its roots in the Constitution."[385] Citing *Whalen*, the Court in *Ferguson v. City of Charleston* concluded that "[t]he reasonable expectation of privacy enjoyed by the typical patient undergoing diagnostic tests in a hospital is that the results of those tests will not be shared with non-medical personnel without her consent."[386] Also relying on *Whalen*, the Court in *Department of Justice v. Reporters Committee for Freedom of the Press* stated that "the fact that an event is not wholly 'private' does not mean that an individual has no interest in limiting disclosure or dissemination of the information."[387] That case went on to hold that, under the Freedom of Information Act (FOIA), government-maintained rap sheets on criminals need not be disclosed to the press because they did not further the FOIA's "central purpose" of exposing to public scrutiny official information that sheds light on an agency's performance of its statutory duties.[388]

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[382] *Wilson*, 526 U.S. at 614.

[383] 429 U.S. 589 (1977).

[384] *Whalen*, 429 U.S. at 601 ("There is no support in the record, or in the experience of the two States that New York has emulated, for an assumption that the security provisions of the statute will be administered improperly."). The Court also noted that it did not need to address the constitutionality of "the unwarranted disclosure of accumulated private data whether intentional or unintentional or by a system that did not contain comparable security provisions." *Id.* at 605-06.

[385] *Id.* at 605.

These cases indicate that the Court is willing to interpret the Constitution and statutory mandates to circumscribe disclosure of private information gathered by the government. In the CCTV setting, the content of these rules might vary widely. With respect to storage of information, a jurisdiction might require that all recordings not relevant to a criminal investigation be destroyed within a short period of time (the ninety-six hour limitation used in the survey reported in this article comes from Baltimore's policy[389]). Or it could opt for a much longer maintenance period, in the belief that the usefulness of particular tapes, either to inculpate or exculpate, may not become apparent until significant time has elapsed. The important feature here is to ensure the security of the recordings. With respect to dissemination, the Court's cases suggest that allowing information to be used for non-law enforcement purposes ought to be permitted only under compelling circumstances, if at all. The ABA Standards recommend that "disclosures be prohibited unless affirmatively authorized by statute, judicial decision or agency rule."[390] That language echoes the *Sitz* mandate that decisions affecting large segments of the public be left to politically accountable officials.

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[386] 532 U.S. 67, 78 & n.14 (2001).

[387] 489 U.S. 749, 770 (1989).

[388] *Reporters Comm.*, 489 U.S. at 774.

[389] *See* Remarks of Stephen McMahon, *supra* 68, at 6.

[390] ABA STANDARDS, *supra* note 16, at 13 (Standard 2-9.1(d)(vi)(comment). *See* Harold J. Krent, *Of Diaries and Data Banks: Use Restrictions Under the Fourth Amendment*, 74 TEX. L. REV. 49, 85-92 (1995)(giving reasons for requiring disclosure rules to be promulgated by deliberative bodies).

Before leaving this subject, mention must be made of a provocative proposal made by William Stuntz. I have argued here that, in addition to rules regarding disclosure, we need rules concerning justification and implementation. Stuntz suggests that, at least when government engages in "secret searches," we might profitably consider focusing *solely* on disclosure rules.[391] More specifically, he proposes that government be allowed to carry out such searches randomly, without having to demonstrate any suspicion, on condition that it be permitted to use the information it obtains only in prosecutions for serious, violent crimes.[392] That approach, he asserts "would allow us to give both the police and private citizens more of what they value–easier evidence-gathering and reduced risk of embarrassment or harassment."[393]

Although CCTV, as defined in this article, is not conducted secretly, it could be.[394] Stuntz would allow such covert use at the whim of the police, as long as the disclosure rule is followed. No one would know their right to anonymity had been invaded unless and until they are prosecuted for a serious crime. Why not institute this regime rather than bother with the elaborate rules discussed to this point?

One concern is whether government can be trusted to limit its use of the information it obtains through covert CCTV to prosecutions of serious crimes. Given the secret nature of these searches, finding the "poisonous tree" in prosecutions for nonserious crimes may be difficult.[395] Furthermore, of course, barring use of surveillance results in court does not provide any disincentive to police who intend to use CCTV feeds solely to harass "flawed consumers" or take other actions they know will not lead to charges being filed.[396]

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[391] William J. Stuntz, *Local Policing After the Terror*, 111 YALE L.J. 2137, 2183-84 (2002)("The law could allow a given search tactic whenever the police want to engage in it, but forbid public disclosure of anything uncovered save in a criminal trial.")

[392] *Id.* at 2184.

[393] *Id.* at 2185.

[394] *See* UPI, *supra* note 54 (describing new CCTV system in Hull, England "using tiny cameras disguised in street lamps or concealed on buildings to transmit pictures to a monitoring center around the clock.")

[395] Informants can always be manufactured when necessary to cover illegal investigation practices. *See* Christopher Slobogin, *Testilying: Police Perjury and What To Do About It*, 67 U. COLO. L. REV. 1037, 1043 n. 28 (1996)(discussing "the invention of 'confidential informants' . . . , a ploy that allows police to cover up irregularities in developing probable cause or to assert they have probable

The more important problem with the elimination of justification and execution rules, however, has to do with the right to anonymity. Stuntz' proposal might not openly infringe that right for those not prosecuted, but it *insidiously* trenches on *everyone's* right to avoid suspicionless government scrutiny. Indeed, in the CCTV context, once the public becomes aware that random covert surveillance is occurring, as it inevitably would after a few prosecutions in which the covertly gleaned information is used, the panoptic effect of this regime will be greater than occurs with overt CCTV. Although the survey results reported earlier suggest otherwise (with the covert scenario ranked significantly lower than the overt scenario[397]), the covert scenario used in the survey implied that the surveillance was limited to one location.[398] In Stuntz' society, by contrast, we would assume that secret surveillance was pervasive, not just incidental. That would move us one step closer to an Orwellian society, because we would no longer know when and where government is attempting to find out what we are doing in public; in other words, we would not know when or how to protect against invasion of our public anonymity. Probably no passage in Orwell's novel *1984* is more chilling than the one partially excerpted at the beginning of this article: "There was of course no way of knowing whether you were being watched at any given moment. . . . It was even conceivable that they watched everybody all the time."[399]

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cause when in fact all they have is a hunch.")

[396] *See infra* note 408-09 and accompanying text.

[397] *See* Table 1 (covert scenario (M=42); overt scenario (M=53)), *supra* p. 277.

[398] Specifically, the scenario read as follows: "Police at a central control center monitoring hidden video cameras positioned at 300-yard intervals that can zoom in on the face and body of a person." Survey form, *supra* note 274.

[399] ORWELL, *supra* note 3, at 6.

D. Accountability

Even overt CCTV can be covert in the sense that we may not know precisely when publicly placed cameras are being used to watch us, or for how long, or with what level of justification, if any. And if we do not have that information, the rules described above cannot be enforced. Even with that information, reliance on the police to hold themselves accountable for a violation of the rules, which is the current approach, is unlikely to ensure full compliance. Finally, even good faith efforts at full compliance with the rules will not achieve their ultimate goal as long as people still feel significant panoptic effects. Unless people believe they are free from camera observation most of the time they are in public, constitutionalizing police use of CCTV does not do much good. All three of these concerns deserve some attention.

1. Watching the Watchers

The rules concerning individualization, discrimination and termination comprise what could be called "conduct-of-surveillance" rules, since they have to do with the actual operation of the cameras. How can we know when camera operators are scrutinizing a particular individual for a prolonged period of time despite a lack of articulable suspicion? How do we make sure that the police refrain from using cameras in a discriminatory fashion?

Self-reports probably will not work. Operators may not even recognize their discriminatory practices, and if they did, they are hardly likely to confess them. Similarly, suspicion is always easy to manufacture in hindsight, if the searcher has control of the facts.[400] As the ABA Standards admonish, police must develop "administrative rules which *ensure* that the information necessary for . . . accountability exists,"[401] a sentiment that is not inconsistent with Fourth Amendment tenets.[402]

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[400] *See* William J. Stuntz, *Warrants and Fourth Amendment Remedies*, 77 VA. L. REV. 881, 913-15 (1991)(discussing the ease with which police can commit perjury at suppression hearings, given their ability to reconstruct what happened based on knowledge of what was found, the tendency to believe police rather than criminal defendants, and the hindsight biasing effect created by arrest).

[401] ABA STANDARDS, *supra* note 16, at 13 (Standard 2-9.1(f)(i))(emphasis add-

David Brin has argued that the best way to control the government (and everyone else) in a surveillance-happy "transparent society" is to watch the watchers.[403] That idea could be implemented in the CCTV context in at least two ways. Camera tapes could be "audited" periodically and randomly by independent reviewers to determine whether operators are violating any of the rules. Or the watchers really could be watched, by cameras. That method would not only capture the facts necessary to determine whether conduct of surveillance standards are obeyed, but also bring home to operators the panoptic effects their surveillance has on others, thus perhaps curbing voyeuristic and other unnecessary observation.

2. Assuring Compliance

Assuming a violation is discovered, what should be done? As noted earlier, police favor "voluntary guidelines," by which they appear to mean rules that they not only develop, but also enforce. The history of police willingness to punish their own for violations that involve balancing abstract concepts like "privacy" against law enforcement needs is well-known and not impressive.[404] Some other accountability mechanism is neces-

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ed).

[402] The Supreme Court has indicated that the failure to maintain accurate records about the result of a search is not a violation of the Fourth Amendment when the underlying search is valid. Cady v. Dombrowski, 413 U.S. 433, 449 (1973)("As these items were constitutionally seized, we do not deem it constitutionally significant that they were not listed in the return of the warrant."). But it has yet to address this issue where the validity of the search is questionable or indeterminable because of police failure to provide adequate information. Furthermore, it has held that the Fourth Amendment is violated when police intentionally hide or mischaracterize information relevant to a search. Franks v. Delaware, 438 U.S. 154, 155-56 (1978)("where the defendant makes a substantial preliminary showing that a false statement knowingly and intentionally, or with reckless disregard for the truth, was included by the affiant in the warrant affidavit, and if the allegedly false statement is necessary to the finding of probable cause, the Fourth Amendment requires that a hearing be held at the defendant's request").

[403] DAVID BRIN, THE TRANSPARENT SOCIETY (1998).

[404] *See generally* CHRISTOPHER SLOBOGIN, CRIMINAL PROCEDURE: REGULATION OF POLICE INVESTIGATION 563-65 (2d ed. 1998)(describing ineffectiveness of adminis-

sary.

In the Fourth Amendment context, that mechanism has usually been exclusion of illegally obtained evidence.[405] Certainly that sanction should be invoked when it applies. But it is unlikely to be a potent deterrent in connection with the types of rules at issue here.

Take first the rules concerning individualization, discrimination and termination–the conduct-of-surveillance rules. The most important reason exclusion does not do a good job encouraging compliance with these types of rules is that the vast majority of people subject to camera surveillance, and therefore most people whose activities are observed in violation of the rules, will never be prosecuted, either because they are completely innocent or commit infractions that are taken care of on the street.[406] In short, most violations of the right to public anonymity will not be redressed through exclusion. That is not a good prescription for ensuring deterrence.[407]

Moreover, when police *do* want to prosecute crimes illicitly discovered through camera surveillance, they will frequently be able to avoid exclusion. First, exclusion may not be required if the field officer who makes an arrest based on information from a camera operator acts in a good faith belief that no rules were violated by the operator.[408] Second, police know that if they can track down eyewitnesses, through the camera tapes or

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trative sanctions); JEROME SKOLNICK, JUSTICE WITHOUT TRIAL 224 (1975)(asserting that as long as a search or seizure is "in conformity with administrative norms of police organization," superiors will be sympathetic).

[405] Mapp v. Ohio, 367 U.S. 63 (1961).

[406] *See* NORRIS & ARMSTRONG, *supra* note 44, at 168 (reporting that arrests resulted from only 12, or 1.2%, of 986 "targeted surveillances," and that police deployed by cameras gave "no more than a warning" to 76% of those confronted by police); *see also* Norris, *supra* note 51, at 37 (noting that exclusion of unwanted individuals in CCTV regimes "is achieved without any recourse to the formal criminal justice system and therefore bypasses legal safeguards embodied in the public justice of the courts").

[407] Behavioral theory suggests that unwanted behavior is most likely to be eliminated if punishment occurs immediately after every unwanted incident. *See* Christopher Slobogin, *Why Liberals Should Chuck the Exclusionary Rule*, 1999 ILL. L. REV. 363, 374-377 (applying behavioral theory to exclusionary rule).

[408] *See* Arizona v. Evans, 514 U.S. 1 (1995)(holding that exclusion is not required where arresting officer relies on computer records maintained by civilian court personnel).

otherwise, the latter's testimony will usually be admissible even if the testimony of the camera operator and field officer is tainted by illegal surveillance.[409] Only if the prosecution of crimes were barred outright whenever they are discovered through a violation of CCTV rules would the threat of "exclusion" pose a serious deterrent. But even then, resourceful operators can hide the poisonous tree through untracked calls to a field officer.

As a supplement to exclusion, a more direct sanction is necessary when conduct-of-surveillance rules are violated. In theory, both damages actions and administrative and criminal sanctions are far superior to exclusion, because they would not be dependent on whether prosecution–or indeed on whether any government action at all–is based on surveillance results. Criminal prosecutions would probably be considered too draconian or too difficult to bring, however.[410] Given the many limitations on constitutional damage actions that have been imposed by the courts,[411] that method of deterring violations would not work well either, at least as it is currently structured.[412] The best sanctioning system may well be an administrative penalty, such as a suspension or a dock in pay, but sought by an entity independent of the police and enforced by the courts.[413]

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[409] *Cf.* United States v. Ceccolini, 435 U.S. 268, 278 (1978)(holding that since witnesses would often come forward of their own accord, and "since the cost of excluding live-witness testimony often will be greater, a closer, more direct link between the illegality and that kind of testimony is required" before exclusion of the witness will occur).

[410] See WHITEBREAD & SLOBOGIN, supra note 317, at 61-62 (describing obstacles to criminal prosecutions for Fourth Amendment violations).

[411] Suits under 42 U.S.C. § 1983, the main avenue for constitutional damage actions, would not be worth the effort for many people who are illegally surveilled because actual injury in such cases would be negligible, and "symbolic" injury is not compensable. Memphis School Dist. v. Stachura, 477 U.S. 299 (1986). Further, unless the violation is somehow ratified by a superior, the government would usually have a "policy or custom" defense. Pembaur v. Cincinnati, 475 U.S. 469 (1986).

[412] I have suggested methods of significantly reforming the damage regime to make it a more effective deterrent. *See* Slobogin, *supra* note 407, at 384-390.

[413] An ombudsman could both conduct the audits and initiate the disciplinary proceedings. *Cf.* Robert P. Davidow, *Criminal Procedure Ombudsman Revisited*, 73

The other three rules proposed above concern camera placement, notice of camera placement, and disclosure of recordings. Here again the exclusionary sanction is not a particularly good fit. If the placement or notice rules are violated, exclusion of all evidence garnered through the subsequent surveillance seems like overkill if the other rules are followed, and in any event would not necessarily stop surveillance aimed at "flawed consumers." And unlawful disclosure to non-law enforcement entities does not even involve a proceeding at which evidence can be excluded. For the first two types of violations, it would probably be preferable to seek an injunction ordering installation to desist or notice to be provided, which courts could grant when politically accountable officials fail to provide any "reasonable" explanation for their decision.[414] In the latter instance, damages remedies are probably more feasible than in other settings,[415] although judicially-backed administrative sanctions are probably necessary as well.

3. Beyond Sanctions: Accountability Through Information

Will any of this do any good? After all, cameras will still be lawfully installed in some locations. In those areas, won't people still feel "watched," regardless of whether the conduct-of-surveillance and disclosure rules are followed? If so, why bother with all of these rules?

These are good questions. At most, the panoptic effects of

J. CRIM. L. & CRIMINOLOGY 939 (1982).

[414] Hague v. C.I.O., 307 U.S. 496 (1939)(holding that a state official may be enjoined under § 1983). Because the issue concerns whether a planned CCTV system may be installed, it is justiciable; the Court's rigid barriers to injunctive relief against discretionary decisions, *see e.g.*, Los Angeles v. Lyons, 461 U.S. 95 (1983), would be avoided.

[415] If dissemination of the tape is widespread, damages are less likely to be negligible. *Cf. supra* note 411 and accompanying text. Although a constitutional damages suit against the government might be stalled by a policy and custom defense, *see supra* note 411, and the party that receives the tape may be immune, *see* Bartnicki v. Vopper, 532 U.S. 514 (2001), the individuals who release the tape are still liable. Of course, a state law tort action, based on public disclosure of private facts, may also be available. *See* RESTATEMENT (SECOND) OF TORTS §652C (1977); RESTATEMENT (THIRD) OF THE LAW OF UNFAIR COMPETITION § 46 (1993)(nonconsensual appropriation of name of likeness for commercial purposes is actionable).

lawfully placed cameras can only be mitigated, not eliminated. To ensure as much of this mitigation as possible, the conduct-of-surveillance rules should be promulgated widely, and any sanctions imposed as a result of their violation should be publicized as well.

Two other proposals, both recommended by the ABA, are worth consideration. First, "periodic review of the scope and effectiveness of [the] surveillance" ought to occur.[416] Second, the government should "maintain[] and mak[e] available to the public general information about the type or types of surveillance being used and the frequency of their use."[417] Right now, most police departments take neither of these steps.[418] That should be rectified. Periodic internal review would ensure that the government pays attention to whether the cameras are achieving the crime reduction goal it seeks, and might even result in the disassembly of some cameras. Review will also provide information about the nature, frequency and success of camera surveillance that can be disseminated to the public, which can then reach its own conclusions about the scope of surveillance.

Ideally, dissemination of information about CCTV that is conducted under the rules proposed here will lead to the realization that most of us are of no interest to camera operators. Fear that our public actions, or images of those actions, will be scrutinized by faceless bureaucrats or government agents with a suspect agenda should be allayed. Similar to what occurred in connection with electronic surveillance after the advent of legislation requiring strict judicial control over and disclosure of government wiretapping and bugging practices,[419] we should be able to rest assured that camera operators will not watch us simply because they can.

The constitutional basis for these review and publication rules is again the Fourth Amendment. After all, that Amendment guarantees a right to be "secure" from unreasonable searches and seizures.[420] Knowledge that government has enacted rules limiting its surveillance powers, that the rules are being enforced, and that periodic reports on the implementation and success of the surveillance will be made public is the surest way to enhance a sense of security in an age when technology threatens our anonymity.

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[416] ABA STANDARDS, *supra* note 16, at 13 (Standard 2-9.1(f)(iv)).

[417] ABA STANDARDS, *supra* note 16, at 13-14 (Standard 2-9.1(f)(v)).

[418] Recall that 96% of the departments surveyed by the IACP do not maintain information about the effectiveness of their use of CCTV. *See supra* note 80.

[419] 18 U.S.C. § 2529(3)(requiring periodic reports of number of surveillance warrants and warrant extensions, types of crimes investigated with surveillance, number of people overheard, arrests generated by surveillance, and so on).

IV. CONCLUDING COMMENTS: A DIFFERENT FOURTH AMENDMENT?

The fundamental question addressed in this article is whether government use of cameras to observe the public activities of its citizens is a concern of constitutional dimension. CCTV might implicate several constitutional doctrines, among them the First Amendment, the right to freedom of movement, and the general right to privacy. But if one provision has to be selected as a constitutional basis for regulating this type of surveillance, it should probably be the Fourth Amendment, the primary source of limitations on police investigative techniques.

Admittedly, the Supreme Court's Fourth Amendment caselaw does not form a solid basis for the conclusion that CCTV constitutes a "search" or "seizure." Yet, as a linguistic matter, once camera operators shift from scanning crowds to targeting individuals, they are certainly engaging in a "search," the narrowest definition of which involves looking "into or over carefully or thoroughly in an effort to find or discover something."[421] A less literal reading of the Fourth Amendment's threshold should even more readily lead to the same result. Whether framed in the Court's language–in terms of expectations of privacy society is prepared to recognize as reasonable–or in mine–in terms of a right to anonymity that protects against unnecessary government scrutiny–that threshold is crossed when government trains cameras on its citizens, because of the panoptic atmosphere such surveillance creates (an atmosphere that the empirical research reported here suggests is more intrusive than many other government actions that are clearly governed by the Fourth Amendment). If the federal constitution cannot be read to place restrictions on CCTV, then state constitutions, which are less encumbered with negative precedent, should be so construed.[422]

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[420] *See generally*, Clancy, *supra* note 255; *see also*, McAdams, *supra* note 139:

> [T]he amendment guarantees the people a right to be 'secure,' a word that means 'free from fear, care, or anxiety: easy in mind . . . having no doubt.' Manifestly concerned with the repose of the people, the framers of the Fourth Amendment did not merely create a right of individuals to be free from unreasonable searches or seizures, but a societal right to be free from the fear such practices create.

McAdams, *supra* note 139, at 318-19.

[421] WEBSTER'S COLLEGIATE DICTIONARY, *supra* note 113, at 1042.

The same approach should be taken toward other large scale or targeted use of technology by the government, whether it involves monitoring beepers or email traffic, use of computers or satellites. Close examination of an individual's affairs, even those that take place in public venues, ought be regulated to ensure government intrusion into our lives does not grow with technological developments. "Dragnet law enforcement practices," to use *Knotts'* terminology, should be the province of the Fourth Amendment.[423]

The usual implication of this kind of conclusion is that the government must demonstrate probable cause before it can act. Outside of the special needs/administrative context and frisks, the Supreme Court has continued to adhere to that relatively high justificatory standard for searches.[424] Yet that stance either effectively forecloses most law enforcement practices using largescale surveillance or, conversely, provides a huge incentive to leave them entirely unregulated, the Court's usual choice in related settings.[425] If rules of the type devised in this article are to be adopted as a constitutional matter, the "probable cause forever" standard must be abandoned.[426]

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[422] *See* Burrows, *supra* note 56, at 1114-1122 (discussing state constitutional provisions on which regulation of CCTV might be based).

[423] *Compare* Daniel J. Solove, *Digital Dossiers and the Dissipation of Fourth Amendment Privacy,* 75 S. CAL. L. REV. 1084, 1156 (2002)(arguing that courts should recognize a difference, for Fourth Amendment purposes, between information obtained "by speaking with specific individuals versus obtaining it through the vast stores of records held by companies").

[424] Ferguson v. City of Charleston, 532 U.S. 67, 88 (2001)(Kennedy, J., concurring)("The traditional warrant and probable-cause requirements are waived in our previous cases on the explicit assumption that the evidence obtained in the search is not intended to be used for law enforcement purposes").

[425] *See* Christopher Slobogin, *The World Without a Fourth Amendment*, 39

Likewise, dependence on the exclusionary rule as the dominant means of enforcing the Fourth Amendment can stultify meaningful oversight. Never a particularly powerful deterrent even in the traditional search and seizure setting,[427] the rule is even less useful when surveillance of large numbers of people, most of whom will never be prosecuted, is the investigative technique to be regulated. If prevention of violations is the goal, the "punishment" ought to better fit the "crime."

The proposals made here, which are meant to be general in nature to allow the democratic process to fill in the details, reflect those insights. Neither the placement of cameras nor intense scrutiny of particular individuals would require probable cause (or a warrant), but politically accountable officials would have to demonstrate solid grounds for the first action, and camera operators would have to have articulable suspicion for the second. Rules governing storage and disclosure of recordings, which can come under either the Fourth or Fourteenth Amendment's purview, would no longer be secondary to cause requirements but assume central importance as a means of protecting privacy. Depending on the rule in question, administrative sanctions, injunctions and damages should be considered as a supplement to, or substitute for, exclusion as a means of assuring compliance, and dissemination of information about the rules and the use of surveillance ought to be considered as still another way of vindicating the Fourth Amendment guarantee of security from unreasonable searches.

Something akin to these proposals should also be applicable to other types of large-scale technological surveillance conducted by the government. Panopticism comes in many forms. In this era of rapid technological change, the freedom to be unnoticed in public, and its associated benefits, will disappear

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UCLA L. REV. 1, 77 (1991)("Because the courts have been unwilling to define probable cause in this adaptable way, the warrant requirement is slowly being read out of the amendment and many types of searches and seizures are unregulated."). *See also*, Slobogin, *supra* note 269, at 1072-73.

[426] *See* Slobogin, *supra* note 269, at 1081-91.

[427] *See* Slobogin, *supra* note 407, at 373-84.

unless a right to public anonymity is recognized and enforced.

TECHNOLOGY AND THE THRESHOLD OF THE FOURTH AMENDMENT: A TALE OF TWO FUTURES

James J. Tomkovicz[*]

I. INTRODUCTION

The notion that technological developments are mixed blessings is hardly a novel or recent revelation. Others have observed that the enhancements of human abilities afforded by innovative technologies are quite typically swords with two very sharp edges.[1] Our lives are both immeasurably enriched and seriously imperiled by advances in science and technology. The firearms that enable us to hunt more efficiently and to defend ourselves against human and nonhuman predators also enable disturbed adolescents to destroy the peace of educational sanctuaries and the lives of schoolchildren.[2] The automobiles that make it possible for us to travel great distances in short periods, bringing friends and families closer together, are deadly projectiles that take our families and friends from us when in the hands of careless or intoxicated drivers.[3] Airplanes magically fulfill humankind's dream of flight and bestow all the freedoms that dream affords, but in the hands of terrorists they have become the source of our worst nightmares.[4] Personal computers and the internet have opened worlds of information and fostered communication thought to be inconceivably futuristic not so long ago, and at the same time have empowered child pornographers and sexual predators with much more effective means of inflicting harm on innocent, defenseless members of our society.[5] While nuclear sources of power have been tamed and used to meet the ever-increasing societal demand for energy, they harbor a terrifying potential for accidental or intentional mass destruction.[6] Beneficent scientific research yields discoveries that save countless lives, developing drugs that ward off deadly diseases. In the wrong hands, however, the work of science can itself be deadly, spreading illness and devastation through unseen, "weaponized" agents.[7] So it has been with technologies of the past. So it is with technologies of the present. And, I venture to say, so it will be with technologies of the future.

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I am enormously indebted to Professor Thomas Clancy and the National Center for Justice and the Rule of Law for the invitation to participate in this symposium and for the generous funding that enabled me to develop the thoughts in this article. My initial involvement in the issues explored in this article was as an advocate and friend of the Court in *Kyllo v. United States*, 533 U.S. 27 (2001). *See* Brief of Amici Curiae National Association of Criminal Defense Lawyers and The American Civil Liberties Union, Kyllo v. United States, 533 U.S. 27 (2001) (No. 99-8508). In that role, I was required to focus on the limited issue raised by the *Kyllo* case. Although I did have the opportunity to propose a general standard for evaluating the relationship between technology and Fourth Amendment regulation, I was constrained by the clients' wishes and by the primary objective–prevailing in the case before the Court. As a participant in this Symposium, I have been freed to examine the broader context, have been afforded the opportunity for impartial, dispassionate exploration of the questions raised, and have been afforded the invaluable benefits of critical insights from others with expertise in this field. A scholarly perspective has made it evident that the larger issue that underlay *Kyllo* is much more complex than I had thought while working on the brief in that case. The opportunity and the obligation to consider every angle and ramification have prompted a realization that difficult distinctions and analytical quandaries abound. I am much less sure now that I have or will ever arrive at the "right" answers. I believe I will be able to shed some light on some of the darker recesses of the maze. In so doing, I hope to advance the discussion at least a few steps in the right direction.

I wish to thank the other participants in this symposium–Professors John Burkoff, A. Morgan Cloud, Tracey Maclin, David Sklansky, Christopher Slobogin, and Kathryn Urbonya–for their most helpful insights. I am also indebted to Joe Christianson, Sean Helle, and Kyle Kaiser for excellent research and editorial assistance.

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[1] *See, e.g.*, Steven R. Salbu, *Symposium: Corporate Governance, Stakeholder Accountability, and Sustainable Peace: The European Union Data Privacy Directive and International Relations*, 35 VAND. J. TRANSNAT'L L. 655, 657 (2002) (observing that the "advantages of technology come at a price" and referring to it as a "double-edged sword"); Michael L. Closen et al., *Notarial Records and the Preservation of the Expectation of Privacy*, 35 U.S.F. L. REV. 159, 173 (2001) (observing that technology is a "double-edged sword . . . because advances that promise to better the lot of society often threaten others in the process"); Jonathan Todd Laba, Comment, *If You Can't Stand the Heat, Get Out of the Drug Business: Thermal Imagers, Emerging Technologies, and the Fourth Amendment*, 84 CAL. L. REV. 1437, 1471-72 (1996) (discussing the "'plus' side" and the "'minus' side" of the technological "double-edged sword" in law enforcement contexts).

[2] *See* Greg Krikorian & Michael Krikorian, *Santee School Shootings*, L.A. TIMES, Mar. 6, 2001, at A1; Mark Obmascik, *High School Massacre*, DENVER POST, Apr. 21, 1999, at A1; James Brooke, *School Shootings Bewilder a Hunting Town*, N.Y. TIMES, June 28, 1998, § 1, at 12; *Witnesses Recount Shooting at Mississippi High School*, N.Y. TIMES, June 11, 1998, at A28.

[3] *See* Shari Roan, *Car Deaths Related to Alcohol Increase*, L.A. TIMES, Oct. 1, 2001, at S1; Nedra Pickler, *Drunken Driving Deaths Increase*, SEATTLE TIMES, Sept. 25, 2001, at A12; *see also* Mich. Dep't of State Police v. Sitz, 496 U.S. 444, 447, 451 (1990) (upholding suspicionless sobriety checkpoint stops as reasonable seizures in part because of the enormous number of deaths and personal injuries and the massive amount of property damage resulting from drunk driving).

[4] *See* Dean E. Murphy & Joel Brinkley, *A Nation Challenged: The Airports; Rethinking Security at Airports*, N.Y. TIMES, Sept. 19, 2001, at B1; *'A National Tragedy': Terrorism Hits New York and Washington*, WASH. POST, Sept. 12, 2001, at C16.

The advantages and dangers of technological developments have significant impacts on the lives of individuals, the lives of communities, and, indeed, on the lives of entire nations. The efficacy and efficiency of governments are undoubtedly improved by scientific or technological progress. Social order can better be preserved and safeguarded with the aid of modern mechanisms. Faster cars, lethal weapons and nonlethal "stun guns," accurate DNA testing, computerized records, and electronic monitoring devices are just a few of the tools that have enabled law enforcement agencies to more effectively neutralize threats, detect crimes, apprehend and maintain control over suspects, and convict the guilty. We are all safer thanks to inventions and discoveries that assist those who keep us secure and safe against forces of violence and disorder. We should be grateful indeed for the impressive enhancements of human abilities afforded by research.

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[5] *See* Margarette Driscoll, *Online Academy for Paedophiles*, SUNDAY TIMES (London), June 2, 2002, at 6; John M. Moran, *Ages 13 and 14 Are Magic Numbers for Online Predators*, CHI. TRIB., May 29, 2002, at C1; *Man Held in Slaying of Girl He Met on Web*, CHI. TRIB., May 22, 2002, at N14.

[6] *See* Bill Nichols, *The World's Worst Nightmare Could Begin Quietly*, USA TODAY, June 4, 2002, at A1; Charlie Edgren, *Greater Nuclear Threat Slowly Emerges*, EL PASO TIMES, June 1, 2002, at 10; *Radiation Pills To Be Given Away*, N.Y. TIMES, June 1, 2002, at B4; Bill Keller, *Nuclear Nightmares*, N.Y. TIMES, May 26, 2002, § 6, at 22.

[7] *See* Michael R. Gordon, *U.S.: Al Qaeda Was Building Lab for Bioweapons*, CHI. TRIB., Mar. 24, 2002, at C6; Shannon Brownlee, *Clear and Present Danger*, WASH. POST, Oct. 28, 2001, at W8.

Technological devices in the hands of the government, however, are not an unmitigated blessing. Once again, the sword of technology has two razor-sharp edges. While one edge can be employed to preserve a nation's security, the other can imperil its very essence. Constitutional freedoms that define our country and make it a bastion of liberty can be severely diminished, even destroyed, by uses and abuses of the tools of progress. The reality, or even the threat of, unregulated electronic monitoring can chill First Amendment freedoms of speech, press and association.[8] Pharmacological truth serums that extract confessions against the will of the individual[9] or intrusions of cameras into courtrooms can undermine the Fifth and Fourteenth Amendment guarantees of due process.[10] Videotaped testimony out of an accused's presence can dilute, if not dismantle, the Sixth Amendment entitlement to be confronted with witnesses.[11] And official efforts to listen in on lawyer-client conversations in the name of national security can endanger that same provision's vital assurance of the right to the assistance of counsel.[12] Of greatest significance for present purposes, sophisticated eavesdropping equipment,[13] electronic tracking devices,[14] aerial surveillance,[15] and other tools that dramatically improve upon human perceptual abilities and enable the government to hear, see, and otherwise learn matters the people seek and wish to keep confidential can eviscerate the precious assurance of privacy safeguarded by the Fourth Amendment right against "unreasonable searches." What once were barriers to human senses are easily hurdled, and matters that were once inaccessible to those senses are brought within their reach by the products of innovation.[16]

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[8] *See* Bartnicki v. Vopper, 532 U.S. 514, 533 (2001) (observing that the fear of being monitored can "'have a seriously inhibiting effect upon the willingness to voice critical and constructive ideas'" (quoting PRESIDENT'S COMMISSION ON LAW ENFORCEMENT AND ADMINISTRATION OF JUSTICE, THE CHALLENGE OF CRIME IN A FREE SOCIETY 202 (1967))); *see also* Smith v. Maryland, 442 U.S. 735, 751 (1979) (Marshall, J., dissenting); United States v. White, 401 U.S. 745, 764-65 (1971) (Douglas, J., dissenting); Lopez v. United States, 373 U.S. 427, 452 (1963) (Brennan, J., dissenting).

[9] *See* Townsend v. Sain, 372 U.S. 293, 308-09 (1963).

[10] *See* Chandler v. Florida, 449 U.S. 560, 581 (1981) (broadcast coverage of criminal proceeding, though not a *per se* violation of due process, can violate right to fair trial); Estes v. Texas, 381 U.S. 532, 535 (1965) (broadcast coverage of pretrial and trial proceedings did violate accused's entitlement to due process).

[11] *See* Maryland v. Craig, 497 U.S. 836 (1990); *id.* at 860, 861 (Scalia, J., dissenting).

[12] *See* Matthew Purdy et al., *A Nation Challenged: The Law: Bush's New Rules to Fight Terror Transform the Legal Landscape*, N.Y. TIMES, Nov. 25, 2001, § 1A, at 1; George Lardner, Jr., *U.S. Will Monitor Calls to Lawyers: Rule on Detainees Called 'Terrifying,'* WASH. POST, Nov. 9, 2001, at A1.

Some probably believe that the gains afforded by science and technology are not worth the risks and costs and would resolve the inevitable tension by halting the march of technological progress. I suspect that most of us, believing it is neither desirable nor possible to stand in the way of the juggernaut, prefer to embrace the advantages of scientific advancement while guarding against becoming the unwitting victims of our own genius. The latter approach seems sensible when addressing the exploitation of technological devices by those who enforce and administer our criminal justice system. There is nothing inherently objectionable about the government taking advantage of scientific and technological progress. We ought to support and endorse uses that promote greater safety and security by making police officers and prosecutors more effective. To require those who keep order to eschew the tools that improve their efficacy–especially when those who threaten social order are more than willing to use innovations to achieve their objectives–seems patently foolish. At the same time, vigilance against exploitations of novel developments that endanger the liberties at the core of our constitutional system seems equally essential. Official uses of technology that effectively circumvent and undermine the protections of liberty deemed fundamental to our nation's character and integrity are genuinely objectionable, even insidious. It is incumbent upon us to promote the government's exploitation of technology, but to keep it in check, to ensure that the sword is used to promote our nation's health and survival without threatening its spiritual vitality, and, indeed, its very identity.[17]

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[13] *See, e.g.*, United States v. White, 401 U.S. 745, 748 (1971).

[14] *See, e.g.*, United States v. Karo, 468 U.S. 705, 721 (1984); United States v. Knotts, 460 U.S. 276, 285 (1983).

[15] *See, e.g.*, Florida v. Riley, 488 U.S. 445, 450 (1989); California v. Ciraolo, 476 U.S. 207, 213 (1986).

[16] For a thorough discussion of an array of technological innovations that pose serious threats to interests in the privacy of information about our lives, see A. Michael Froomkin, *The Death of Privacy?*, 52 STAN. L. REV. 1461, 1468-1501 (2000).

This article focuses on one relatively narrow, but quite significant, aspect of the delicate balance that needs to be struck when assessing law enforcement's use of scientific and technological advances. The concern here is with the relationship between technological developments and the "threshold" of the Fourth Amendment.[18] The central question I address is when an exploitation of technology should be governed by Fourth Amendment constraints upon unreasonable searches.[19] The effort is to ascertain a constitutionally appropriate distinction between enhancements of human capabilities that should not be matters of Fourth Amendment concern and those enhancements that ought to be regulated by Fourth Amendment strictures. The sole objective is to determine which devices should be able to promote societal safety unfettered by Fourth Amendment demands and which ought to be restricted by that provision's "reasonableness" requirement.[20] As will become clear, the quite simple legal inquiry is when a use of technology should be deemed a "search."

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[17] I come to this project neither to praise the virtues nor to denounce the vices of science and technology. I think it is important to bring a balanced perspective to the task. I have a genuine appreciation for the special advantages I have as a result of those who spend their lives dreaming and devising new ways to expand the human potential. I am delighted that they equip those who labor to protect my family with ever more effective means of doing so. But I am also aware of and deeply concerned by the potential destructive impacts on civil liberties and, ultimately, on the character of our nation.

[18] The "threshold" of the Fourth Amendment refers to the dividing line between those official actions that are governed by that provision and those that are beyond its reach. The decision by the National Center for Justice and the Rule of Law to devote this inaugural symposium to the relationship between technology and the Fourth Amendment is gratifying. Few subjects could be more significant or timely. I have often bemoaned the fact that the guarantees of that Bill of Rights provision are unappreciated by the people for whom it was adopted. The abusive practices that prompted this fundamental constitutional safeguard were deeply resented by our ancestors. *See* David Rudovsky, *The Impact of the War on Drugs on Procedural Fairness and Racial Equality*, 1994 U. CHI. LEGAL F. 237, 242. Their abhorrence of unjustified searches and seizures was so powerful that it was among the primary reasons for the revolution that gained our independence from Britain. *See* Timothy Lynch, *In Defense of the Exclusionary Rule*, 23 HARV. J.L. & PUB. POL'Y 711, 721-22 (2000); T. Taylor, Two Studies in Constitutional Interpretation, 38 (1969); N. LASSON, THE HISTORY AND DEVELOPMENT OF THE FOURTH AMENDMENT TO THE UNITED STATES CONSTITUTION 100 (1937). Too often in modern times, the Fourth Amendment's safeguards are instead viewed as "technicalities" that lead to the release of guilty criminals. This symposium can engender the respect and reverence that the liberties enshrined in the Fourth Amendment deserve and can promote a genuine understanding of the central role that the "right to be secure against unreasonable searches and sei-

As the title suggests, this piece tells "a tale of two futures." One of those futures is the one that was unknown to the Framers of the Constitution but has unfolded in the years between 1791 and 2002. In considering that future–our past–the aim is to describe and evaluate how we have resolved questions involving technology and the Fourth Amendment's threshold. The second future referred to is the one still unknown to us. The objective here is to prescribe constitutionally defensible methods of understanding and resolving the thorny issues raised by the interface between technology and the

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zures" plays in defining the character of our free nation. The rapid growth of technological innovation and the graphic, devastating intrusion of terrorism into the daily lives of Americans are forces that jeopardize the vitality of the fundamental freedoms promised by the Fourth Amendment. This is indeed a most opportune time for conscientious and serious reflection upon the intricacies of the relationship between technology and those freedoms.

[19] For other discussions pertaining to this topic, see George M. Dery III & James R. Fox, *Chipping Away at the Boundaries of Privacy: Intel's Pentium III Processor Serial Number and the Erosion of Fourth Amendment Privacy Expectations*, 17 GA. ST. U. L. REV. 331, 338-49 (2000); George Dery III, *Remote Frisking Down to the Skin: Government Searching Technology Powerful Enough to Locate Holes in Fourth Amendment Fundamentals*, 30 CREIGHTON L. REV. 353 (1997); David A. Harris, *Superman's X-Ray Vision and the Fourth Amendment: The New Gun Detection Technology*, 69 TEMP. L. REV. 1 (1996); Lewis R. Katz, *In Search of a Fourth Amendment for the Twenty-First Century*, 65 IND. L.J. 549 (1990); James J. Tomkovicz, *Beyond Secrecy for Secrecy's Sake: Toward An Expanded Vision of the Fourth Amendment Privacy Province*, 36 HASTINGS L.J. 645 (1985).

[20] I do not address the subsequent question of when a regulated technological exploitation should be deemed unreasonable and, therefore, unconstitutional.

Fourth Amendment. The article begins by briefly describing the legal background and context in which this particular inquiry arises. In Part II of the piece, I discuss the historical evolution of the Supreme Court's doctrine regarding when any governmental action constitutes a search within the meaning of the Fourth Amendment.[21] This part includes a thorough discussion of the currently controlling "reasonable expectation of privacy" doctrine that has developed over the past thirty-five years.[22] Part III describes and analyzes the modern[23] Supreme Court opinions and holdings concerning the interface between technology and the reach of Fourth Amendment control.[24] The discussion highlights doctrinal nuances particularly pertinent to exploitations of technological devices, constructs categories within which the variables that have proven dispositive or influential can be classified, and critiques the standards that have governed threshold technology determinations. The aim is a clear portrayal of the Supreme Court's understanding of the relationship between technological advances and the reach of the Fourth Amendment and of the potential deficiencies in that understanding. In the final section, Part IV, I venture onto a dangerous limb, proposing a general standard that might promote more defensible, consistent answers to past and future questions regarding whether the exploitation of a novel device amounts to a search.[25] The meaning and intent of this standard are addressed in some detail.

II. AN HISTORICAL AND DOCTRINAL CONTEXT: THE SUPREME COURT'S DEVELOPMENT OF FOURTH AMENDMENT "THRESHOLD" DOCTRINE

The Fourth Amendment is an acknowledgment by the Framers of our Constitution that liberty and social order are in tension with one another. It reflects their best effort to strike and capture the most desirable balance between those two goals. It seems fair to say that their objective was to guarantee the maximum amount of individual freedom that would be possible in a nation that also aspired to be safe, secure, and enduring. They recognized that perfect order was possible only in repressive regimes that suffocate liberties and that unconstrained liberties would prevent self-preservation. Informed by their experiences with the dangerous practices of the British authorities they had revolted against, they provided that the government could engage in searches and seizures, but only if they were "reasonable" and only if warrants to do so met certain limiting requisites.

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[21] *See infra* notes 26-140 and accompanying text.

[22] *See infra* notes 98-140 and accompanying text.

[23] The term "modern" is intended to refer to those opinions and holdings that have been rendered since the landmark 1967 decision in *Katz v. United States*, 389 U.S. 347 (1967), that revolutionized Fourth Amendment threshold doctrine.

[24] *See infra* notes 141-422 and accompanying text.

[25] *See infra* notes 423-40 and accompanying text.

The balance struck is primarily reflected in the core requirement of reasonableness, but it is also inherent in the decision to limit the Fourth Amendment's coverage to "searches and seizures." The development of constitutionally defensible standards for resolving threshold questions is, thus, a critical part of an effort to honor and implement the Framers' resolution of the tension between order and liberty.[26] The significance of the threshold issue is hard to understate. If the employment of a new investigatory tool *is not a search* at all, it is outside the sphere of Fourth Amendment regulation, and government authorities are at liberty to use it whenever they wish, without need for prior justification. The "people" are wholly unprotected from any impacts the device may have on their lives.[27] On the other hand, if exploitation of a novel device *is a search*, the government is not free to use it randomly, but is instead constrained by the command of reasonableness that governs entries of homes and other private domains. The infringements occasioned by the use of that device will be kept in check.

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[26] Perhaps I should clarify a distinct, though not particularly radical, presupposition that guides and informs my analyses. I do not believe that it is our prerogative to prescribe or alter the constitutional balance. In my view, the central, limiting objective is to discern to the best of our sometimes inadequate abilities the balance intended by those who designed and adopted the Fourth Amendment and to develop governing doctrines that are faithful to that balance.

[27] Officials are, of course, subject to other constitutional and statutory constraints. It is often the case, however, that if a particular activity is not deemed a search, there is no meaningful legal restriction upon the government's ability to engage in it.

These dramatically different effects of determining that a given practice–an exploitation of a particularly technology, for example–is or is not a search highlights the critical importance of the constitutional line that controls the inquiry. Controlling standards that more readily classify an activity as a search slant the constitutional balance in favor of liberty and yield a correspondingly less secure society. Standards that make it difficult for any practice to qualify as a search tip the scales in favor of safety and order at the expense of liberty. For the government, for society, and for each and every individual, the stakes are high indeed.

A. *The Evolution of Threshold Doctrine in the Supreme Court*

The evolution of Supreme Court threshold doctrine reflects three distinct phases that correspond to three landmark Fourth Amendment decisions: *Boyd v. United States*,[28] *Olmstead v. United States*,[29] and *Katz v. United States*.[30] During the first two periods, each roughly forty years in length, there were relatively few significant Supreme Court decisions. The basic doctrine spawned few embellishing details. The third phase has been distinctly different. In the thirty-five years since it began, a substantial number of significant Supreme Court decisions have generated an array of fascinating, intricate doctrinal specifics. The doctrine born in *Katz* has branched and blossomed as it has been called upon to furnish answers to a variety of difficult, unforeseeable threshold issues. Technological enhancements of human capacities have been the source of many of those issues.

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[28] 116 U.S. 616 (1886).

[29] 277 U.S. 438 (1928).

[30] 389 U.S. 347 (1967).

1. The *Boyd* Era: The Purpose of the Governmental Conduct Approach

The Supreme Court did not decide whether a government action was a search until 1886, almost a century after the ratification of the Bill of Rights. *Boyd v. United States*,[31] the Court's initial effort to define the scope of Fourth Amendment regulation, involved legislative, not technological, innovation.[32]

The United States instituted a forfeiture action against thirty-five cases of imported plate glass based on allegations of customs fraud.[33] To prove its case, the government sought information about twenty-nine cases of previously imported glass.[34] Acting under the authority of an 1874 federal statute, a judge issued an order requiring the claimants to produce the invoice for that glass so that the government could examine and copy it.[35] The statute provided that if a party did not comply with a production order the government's allegations concerning what it expected to prove "shall be taken as confessed" and that if the party did comply, the government could introduce what it discovered into evidence.[36] While objecting to the constitutionality of the production order, the claimants complied with the order.[37] They again objected when the government sought to introduce information gleaned from the invoice into evidence.[38] Following a jury verdict for the United States and entry of a judgment of forfeiture, the claimants appealed.[39]

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[31] 116 U.S. 616 (1886).

[32] *Boyd*, 116 U.S. at 620-23. For scholarly analyses of the *Boyd* decision, see Robert L. Misner, *In Partial Praise of* Boyd*: The Grand Jury as Catalyst for Fourth Amendment Change*, 29 ARIZ. ST. L.J. 805, 811-17 (1997); Morgan Cloud, *The Fourth Amendment During the* Lochner *Era: Privacy, Property, and Liberty in Constitutional Theory*, 48 STAN. L. REV. 555, 573-98 (1996); William J. Stuntz, *The Substantive Origins of Criminal Procedure*, 105 YALE L.J. 393, 419-33 (1995); Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 363-65, 377-409 (1974).

[33] *Boyd*, 116 U.S. at 617.

[34] *Id.* at 618.

[35] *Id.*

[36] *Id.* at 620.

[37] *Id.* at 618.

[38] *Id.*

At the outset, the Supreme Court observed that the issue of the reach of the Fourth Amendment[40] was "a very grave question of constitutional law, involving the personal security, and privileges and immunities of the citizen."[41] It documented the ancestry of the 1874 statute, noting that it was passed in lieu of an 1867 enactment authorizing the issuance of warrants to enter premises and search for invoices, books, and papers, which, in turn, had supplanted an 1863 statute granting the authority to issue warrants for that purpose.[42] The Court pointedly observed that the 1863 Act was "the first legislation of the kind that ever appeared on the statute book of the United States,"[43] and that it "was adopted at a period of great national excitement, when the powers of the government were subjected to a severe strain to protect the national existence."[44]

To the contention that the 1874 act authorized unreasonable searches and seizures, the government responded that the process under that statute was "free from constitutional objection, because it [did] not authorize the search and seizure of books and papers, but only require[d] the defendant or claimant to produce them."[45] The Court's resolution of these opposing assertions yielded the first doctrine designed to define the scope of Fourth Amendment regulation.

The Court acknowledged that production orders did not involve "certain aggravating incidents" of the searches and seizures that were the clear targets of Fourth Amendment regulation for there was no "forcible entry into a . . . house [or] searching amongst . . . papers."[46] Nonetheless, the Court concluded that the "compulsory production of a man's private papers to establish a criminal charge against him, or to forfeit his property, [was] *within the scope of the Fourth Amendment . . . because it* [was] a material ingredient, and *effect[ed] the sole object and purpose of search and seizure*."[47] According to the Court, the forcible entries and searches governed by "the Fourth Amendment [were] almost always made for the purpose of compelling a man to give evidence against himself."[48] A compulsory production order *"accomplishe[d] the substantial object* of" those entries and searches and was subject to the same regulatory regime because it *"forc[ed] from a party evidence against himself."*[49] It was "the equivalent of a search and seizure . . . within the meaning of the Fourth Amendment" because "it contain[ed] their substance and essence, and effect[ed] their substantial purpose."[50] In the Court's view, a compulsory production order would not have found favor with our ancestors because it was, quite simply, an "old grievance which they . . . so deeply abhorred" clad in an "insidious disguise[]."[51]

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[39] *Id.*

[40] The question of whether the order violated the Fifth Amendment prohibition on compulsory self-incrimination was also before the Court. *Id.* at 621.

[41] *Id.* at 618.

[42] *Id.* at 619-21.

[43] *Id.* at 621.

[44] *Id.*

[45] *Id.*

[46] *Id.* at 622.

The strong implication of *Boyd* was that any official action with the purpose of compelling a person to furnish incriminating evidence must be treated like the physical entries and searches known to the Framers. Official actions designed to accomplish the same objectives as those searches had to be subjected to Fourth Amendment regulation and satisfy the Fourth Amendment demand of reasonableness. In both design and impact, *Boyd's* "purpose-oriented" approach was expansive.[52] By rejecting the government's assertion that a command to produce papers and a physical entry to look for those papers were entirely different constitutional creatures,[53] the Court refused to confine Fourth Amendment scope to those practices that in physical character resembled the forcible entries experienced by our ancestors. To the *Boyd* majority, the question was one of substance, not form. Official actions would be treated as "equivalent to" searches and seizures or as searches and seizures "in disguise" when their "object and purpose" were the same–to force from a person evidence for use against him.[54]

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[47] *Id.* (emphasis added).

[48] *Id.* at 633.

[49] *Id.* at 622 (emphasis added).

[50] *Id.* at 635.

[51] *Id.* at 630.

[52] The *Boyd* Court's attitude toward the interpretation of fundamental guarantees was expansive in character. Toward the end of the opinion, after warning that "illegitimate and unconstitutional practices get their first footing . . . by silent approaches and slight deviations from legal modes of procedure," the Court declared that the "only" way to prevent that result was "by adhering to the rule that constitutional provisions for the security of person and property should be liberally construed. A close and literal construction deprives them of half their

2. The *Olmstead* Era: The Textual-Historical-Physical Similarity Approach

Forty-two years passed before another significant issue regarding the breadth of the Fourth Amendment's regulation of searches prompted the Supreme Court to again address the standards for identifying and defining the threshold of the

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efficacy, and leads to gradual depreciation of the right, as if it consisted more in sound than in substance." *Id.* at 635.

[53] Concurring Justices in *Boyd* agreed with the government's claim that forced production under a court order was not a search within the meaning of the Fourth Amendment. *See id.* at 639 (Miller, J., concurring) ("There is in fact no search and no seizure authorized by the statute.").

[54] Whether the threshold doctrine employed in *Boyd* was intended to be an exclusive and comprehensive test for whether a search and seizure has occurred is uncertain. The purpose approach may have been intended as simply one way of evaluating a novel technique. It is arguable that the *Boyd* standard was at once both too narrow and too broad a gauge of Fourth Amendment reach. The standard was arguably too narrow insofar as it did not encompass government activities that acquired, but did not "force," evidence from an individual. A subsequent decision diminished the force of this criticism by including "stealthy" invasions within the scope of Fourth Amendment coverage. Gouled v. United States, 255 U.S. 298, 306 (1921). It is also arguable that the *Boyd* standard was too narrow insofar as it did not include official conduct when the object was not to investigate. While the Court did refer to privacy and security as Fourth Amendment goals, it did not tie Fourth Amendment coverage to the existence of a privacy invasion. *Boyd*, 116 U.S. at 630. Moreover, the *Boyd* standard was arguably too broad insofar as it seemed to encompass all forcible acquisitions of evidence within the Fourth Amendment's domain. A different understanding of Fourth Amendment aims might lead to the conclusion that not every forcible acquisition of evidence threatens the values that prompted constitutional control of the conventional searches and seizures known to the Framers.

Amendment. *Olmstead v. United States*[55] marks the first in what is now a relatively lengthy series of Supreme Court threshold decisions precipitated by official exploitations of scientific or technological advances. The central question in *Olmstead* was whether wiretapping designed to intercept telephone conversations originating in private homes and offices was a "search" for purposes of the Fourth Amendment.[56]

The *Olmstead* defendants were convicted of a far-reaching conspiracy to violate the National Prohibition Act.[57] "The information which led to the discovery of the conspiracy and its nature and extent was largely obtained by intercepting messages on the telephones of the conspirators by four federal prohibition officers."[58] Without trespassing upon the defendants' property, the officers inserted small wires along the telephone lines leading from their residences and from their chief office.[59] Agents testified to the contents of incriminating conversations they heard during many months of listening.[60]

The Supreme Court opined that the "well known historical purpose of the Fourth Amendment . . . was to prevent the use of governmental force to search a man's house, his person, his papers and his effects; and to prevent their seizure against his will."[61] The *Boyd* Court, in fact, had emphasized this core concern with "the misuse of governmental power of compulsion."[62] In addition, "the [A]mendment itself shows that the search is to be of material things–the person, the house, his papers or his effects."[63] These two premises made it clear that the "[A]mendment does not forbid what was done" in *Olmstead*, a situation involving "no searching" and "no seizure" but only "the use of the sense of hearing" and "no entry of . . . houses or offices."[64] According to the majority, that provision does not apply to telephone wires that are "not part of [the] house or office," and while its language is to be "liberally construed to effect the purpose of the framers . . . in the interest of liberty," its words cannot be enlarged "beyond the possible practical meaning of houses, persons, papers, and effects, or so to apply the words search and seizure as to forbid hearing or sight."[65] Telephone users intend to transmit their words to those outside their homes, and neither the wires used to carry their words nor the words themselves are "within the protection of the Fourth Amendment."[66] Without an "official search and seizure of [a] person, or such a seizure of his papers or his tangible material effects, or an actual physical invasion of his house 'or curtilage' for the purpose of making a seizure," the Fourth Amendment simply is not implicated.[67] Consequently, the wiretapping in *Olmstead* "did not amount to a search or seizure within the meaning of the Fourth Amendment."[68]

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[55] 277 U.S. 438 (1927).

[56] *Olmstead*, 277 U.S. at 439. For scholarly discussions of the *Olmstead* decision, see J. LANDYNSKI, SEARCH AND SEIZURE AND THE SUPREME COURT (1966); Thomas K. Clancy, *What Does the Fourth Amendment Protect: Property, Privacy, or Security?*, 33 WAKE FOREST L. REV. 307, 316-20 (1998); Cloud, *supra* note 32 at 609-17; William C. Heffernan, *Property, Privacy, and the Fourth Amendment*, 60 BROOK. L. REV. 633, 638-40 (1994); Ken Gormley, *One Hundred Years of Privacy*, 1992 WIS. L. REV. 1335, 1360-62.

[57] *Olmstead*, 277 U.S. at 455.

[58] *Id.* at 456.

[59] *Id.* at 456-57.

[60] *Id.* at 457.

[61] *Id.* at 463.

[62] *Id.* The Court noted that *Gouled v. United States* had "carried the inhibition against unreasonable searches and seizures to the extreme limit" by holding that a "stealthy entrance" was within Fourth Amendment control. *Id.* The Court

In essence, *Olmstead* restricted the reach of the Fourth Amendment to the sorts of governmental practices that had been the historical impetus for that guarantee and were described by its literal language and to others that shared certain physical similarities to those practices. Both history and the words employed by the Framers were thought to support the conclusion that a "search" requires a forcible (or at least

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asserted that the authority of *Gouled* had to be limited to its precise facts, explaining that the surreptitiousness in that case "became the equivalent to an entry by force. There was actual entrance into private quarters . . . and the taking away of something tangible." *Id.* at 463-64.

[63] *Id.* at 464.

[64] *Id.*

[65] *Id.* at 465.

[66] *Id.* at 466.

[67] *Id.*

[68] *Id.*

stealthy) "entry" or "actual physical invasion" of a home, person, or other protected place and that a "seizure" occurs only when officials take possession of a tangible thing–a person, paper, or material effect. The acquisition of intangible verbal communications without physical breaches of protected enclaves did not share the critical attributes of either sort of conduct that the Framers intended to bring under constitutional control.

Despite the Court's explicit endorsement of the view that constitutional provisions designed to protect liberty should be liberally construed,[69] its attitude toward the reach of the Fourth Amendment was unmistakably grudging and its definition of a Fourth Amendment search was exceedingly narrow. Unlike the *Boyd* Court, the *Olmstead* majority did not find the purpose of the law enforcement practice to be significant. Moreover, the *Olmstead* decision reflected a narrow conception of the Framers' objectives. The Court cared not whether wiretapping had impacts on the lives of individuals similar to those effected by physically invasive searches or seizures. The majority's fear that a different conclusion about the relationship between wiretapping and the Fourth Amendment would be unfaithful to history and to the literal terms of the constitutional text prompted it to ignore the powerful arguments of four dissenters who argued that the Court's limiting approach would permit novel developments to undermine constitutional freedoms.[70] The result was a threshold doctrine that hinged on form and had little substance, promising that law enforcement use of technological innovations would not be hindered by Fourth Amendment constraints.

Over the next four decades, the Supreme Court decided a number of cases in which it adhered to and relied upon the

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[69] *Id.* at 465.

[70] One can plausibly argue that the *Olmstead* majority's approach was in fact unfaithful to history. The focus on the specific practices known to the Framers and the confinement of the text to those practices yielded a result that is arguably incompatible with and unprotective of the broader objectives and values that motivated the adoption of shelter against unreasonable searches and seizures. *See id.* at 478-79 (Brandeis, J., dissenting) (discussing textual interpretations in light of changing technology).

Olmstead doctrine. Each involved the exploitation of a technological tool–an electronic device that enabled officers to enhance their hearing and eavesdrop on conversations that would have otherwise been inaudible. In the first of these decisions, *Goldman v. United States*,[71] officers secured access to an office adjoining one belonging to one of the petitioners.[72] When placed against the wall shared by the two offices, the "detectaphone" they used picked up and amplified conversations occurring in the adjoining office.[73] The Court held that the Fourth Amendment was not implicated, rejecting the petitioners' argument that *Olmstead* was distinguishable because in *Goldman* the speakers had not assumed the risk of interception by projecting their voices outside the office.[74] According to the majority, "no reasonable or logical distinction [could] be drawn between" the conduct in *Goldman* and the conduct in *Olmstead*.[75] Characterizing the *Olmstead* ruling as "the subject of prolonged consideration," the Court refused an invitation to overrule that decision and instead chose to "adhere to the opinion" of the *Olmstead* majority.[76] The *Goldman* majority evinced no doubt about the legitimacy of the restrictive threshold doctrine announced fourteen years earlier.

Another ten years passed before *On Lee v. United States*[77] reached the Court. In that case, a defendant made incriminating statements during a conversation with a government informant who "was wired for sound, with a small microphone . . . and a small antenna" which enabled a federal narcotics agent with "a receiving set" to listen in on the conversation.[78] On Lee objected to the narcotics agent's testimony concerning his incriminating remarks, alleging that the use of the listening device violated the Fourth Amendment.[79] The Court first rejected the claim that the case was not controlled by the *Olmstead* doctrine because either the informant or the federal agent had "trespassed" onto his premises.[80] No trespass had occurred for there had been no "physical entry either by force, . . . by unwilling submission to authority, . . . or without any express or implied consent."[81] The Court then asserted that even if *Olmstead* was overruled the defendant's claim would lack merit.[82] On Lee "was talking confidentially and indiscreetly with one he trusted" and the government was able to eavesdrop on and overhear his words "with the connivance of" the individual to whom he was speaking.[83] That situation was not analogous to the wiretapping in *Olmstead* in which no party to the overheard conversations either agreed to or facilitated the government's listening.[84]

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[71] 316 U.S. 129 (1942).
[72] *Goldman*, 316 U.S. at 131.
[73] *Id.* at 131-32.
[74] *Id.* at 135-36.
[75] *Id.* at 135.
[76] *Id.* at 135-36.
[77] 343 U.S. 747 (1952).
[78] *On Lee*, 343 U.S. at 749.
[79] *Id.* at 750-51.

In sum, there was no search in *On Lee* because there was no physical intrusion of the sort required by the *Olmstead* doctrine. Moreover, even if the demand for a physical entry was eliminated, electronic eavesdropping by the government made possible by the cooperation of a party to a conversation would not trigger Fourth Amendment coverage. *On Lee* both reaffirmed the extant standard and added yet another basis for rejecting claims that particular government conduct—including the use of technology–constitutes a search.

In the early 1960s, the *Olmstead* doctrine began to show its age. In *Silverman v. United States*,[85] the Court sustained a claim that electronic eavesdropping was a search.[86] In that case, officers gained lawful access to a row house and "employed a so-called 'spike mike' to listen to what was going on within the four walls of the house next door."[87] The device consisted of a "microphone with a spike about a foot long attached to it."[88] The "officers inserted the spike under a baseboard . . . and into a crevice extending several inches into the party wall, until the spike . . . made contact with a heating duct serving the house occupied by the petitioners, thus converting their entire heating system into a conductor of sound" and enabling the officers to hear "[c]onversations taking place on both floors of the house."[89] The petitioners invited a reconsideration of *Olmstead* and its progeny in light of "recent and projected developments in the science of electronics" that would dramatically enhance the ability to eavesdrop from a distance.[90] The Court, however, found no need to "contemplate the Fourth Amendment implications of . . . frightening paraphernalia which the vaunted marvels of an electronic age may visit upon human society" because the conduct in *Silverman* involved "an unauthorized physical penetration into the premises occupied by the petitioners" and, thus, satisfied the demands of the *Olmstead* doctrine.[91] *Silverman* was critically different from *Olmstead* because it involved "the reality of an actual intrusion into a constitutionally protected area."[92]

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[80] *Id.* at 752-53.

[81] *Id.*

[82] *Id.* at 753.

[83] *Id.* at 753-54.

[84] *Id.* at 754-55.

[85] 365 U.S. 505 (1961).

[86] *Silverman*, 365 U.S. at 511-12. This was the first time the Supreme Court had held that the use of a technological innovation to secure otherwise confidential information qualified as a search within the meaning of the Fourth Amendment and thus had to satisfy that provision's demands.

[87] *Id.* at 506.

The *Silverman* opinion was significant for the threshold of the Fourth Amendment and its relationship to official uses of technological tools in a number of respects.[93] *Olmstead* could have been understood to require *both* a physical intrusion *and* the physical acquisition of tangible objects. *Silverman* established that the Fourth Amendment is concerned with the electronic and aural acquisition of intangible items–in this case, words–by means of physical intrusion.[94] In addition, the

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[88] *Id.*

[89] *Id.* at 506-07.

[90] *Id.* at 508.

[91] *Id.* at 509.

[92] *Id.* at 512.

[93] The *Silverman* opinion's significance should not be overstated. Because the holding in the case hinged on the presence of a physical intrusion, it did not open the door to dramatic expansion of the Fourth Amendment regulation of technological tools.

[94] *Silverman*, 365 U.S. at 512. Although not mentioned by the Court, this conclusion was a clear contradiction of one of *Olmstead's* premises.

Court explicitly eschewed the requirement of a "technical trespass under local property law"[95] and held that the magnitude of the physical breach was irrelevant.[96] "Declin[ing] to go beyond" its earlier decisions "by even a fraction of an inch," the Court, in essence, held that any "actual intrusion into a constitutionally protected area" would be sufficient to trigger Fourth Amendment scrutiny.[97] The Court preserved the *Olmstead* doctrine, but interpreted it as narrowly as possible and at least hinted that in a future case the "implications" of "frightening paraphernalia . . . of an electronic age" might imperil the survival of *Olmstead's* stingy threshold approach.

3. The *Katz* Era: An Interest-Oriented Approach

In *Goldman*, *On Lee*, and *Silverman*, the Court was asked to reconsider the restrictive threshold doctrine announced in *Olmstead*. In *Goldman*, it found no reason to question the doctrine and relied on it to reject the defendant's claim. In *On Lee*, the Court evinced no hostility to *Olmstead* while finding no need to address its continuing legitimacy. In *Silverman*, the Court evinced some doubt about the prevailing conception of the Fourth Amendment's reach, but found it unnecessary to reconsider the doctrine. *Silverman* left the *Olmstead* doctrine alive, but far from well.

Just six years later, in another case that illustrated the advantages for law enforcement and the perils for citizens of technology designed to intercept conversations, a litigant once again urged the Court to abandon the controlling threshold doctrine. In *Katz v. United States*,[98] the Court had no easy way to avoid a confrontation with *Olmstead*. The defendant's claim had to be rejected if the actual intrusion criterion was applied. Moreover, if *Olmstead* was overturned, there was no apparent reason why the defendant would not be entitled to Fourth Amendment shelter. All but one of the Justices decided that it was time to pull the plug on *Olmstead's* life support.[99]

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[95] *Id.* at 511.

[96] *Id.*

[97] *Id.* at 512. Not long thereafter, the Court proved how serious it was in refusing to expand the *Olmstead* limitation by even the smallest increment. In *Clinton v. Virginia*, 377 U.S. 158 (1964), a case involving electronic eavesdropping accomplished by means of a *de minimis* physical intrusion–an intrusion that was apparently thumbtack-sized, *see* Clinton v. Virginia, 130 S.E.2d 437, 442 (Va. 1963)–the Court found that a search had occurred. *See Clinton*, 377 U.S. at 158.

[98] 389 U.S. 347 (1967).

In *Katz*, federal agents "attached an electronic listening and recording device to the outside of [a] public telephone" and intercepted "the petitioner's end of telephone conversations."[100] The words intercepted provided evidence that helped the government convict him of violating a federal statute that criminalized use of a wire communication facility to transmit wagering information in interstate commerce.[101] In accord with the *Olmstead* approach, the Court of Appeals rejected the petitioner's Fourth Amendment claim because "'there was no physical entrance into the area [he] occupied.'"[102]

Before the Supreme Court, the government argued that the "surveillance technique . . . employed involved no physical penetration of the telephone booth."[103] The Court responded as if the *Olmstead* approach had already expired and was simply awaiting a proper burial. Acknowledging that "the absence of such penetration was *at one time* thought to foreclose further Fourth Amendment inquiry," the Court asserted that it had "since departed from the narrow view on which [*Olmstead*] rested."[104] That departure made it "clear that the reach of that Amendment *cannot turn upon the presence or absence of a physical intrusion into any given enclosure*."[105] The erosion of *Olmstead*'s "underpinnings" meant that its "'trespass'" doctrine could "no longer be regarded as controlling."[106] In its place, the Court offered a potentially expansive, painfully ambiguous, threshold doctrine. The electronic eavesdropping in *Katz* was a "search" because it had "violated the privacy upon which [Katz had] justifiably relied" even though it "did not happen to penetrate the wall of the booth."[107]

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[99] *See Katz*, 389 U.S. at 364 (Black, J., dissenting).

[100] *Id.* at 348.

[101] *Id.*

[102] *Id.* at 348-49.

[103] *Id.* at 352.

[104] *Id.* at 352-53 (emphasis added).

[105] *Id.* at 353 (emphasis added).

[106] *Id.*

The *Katz* majority decided that the reign of the physical intrusion standard had to end because it could not adequately safeguard the important interests that had motivated the Framers of the Fourth Amendment. In the Court's view, privacy was a primary concern of those who abhorred unreasonable searches and seizures and a primary reason for providing a constitutional assurance against them.[108] In the modern world, scientific and technological advances had furnished means of breaching privacy without physical intrusion. Threshold doctrine had to recognize and take account of that reality if it was to be capable of preserving the substance of the constitutional guarantee. The preferable approach was interest-oriented, an approach that focused on the core Fourth Amendment interest in privacy and evaluated whether governmental conduct jeopardized that interest. Under this approach, official actions that had impacts on privacy similar to those effected by the physical intrusions known to our ancestors had to be deemed searches.[109]

The *Katz* opinion contained two significant limitations. First, the Court noted that the reach of the Fourth Amendment did not extend to every governmental infringement upon privacy.[110] That guarantee "protects individual privacy against [only] *certain kinds* of governmental intrusion."[111] The meaning of this limitation seems relatively clear. The Court was merely acknowledging that privacy is a term used to describe a variety of concepts, and that not all of them are Fourth Amendment concerns.[112] Second, the Court indicated that only violations of "*justifiably* relied" upon privacy could qualify as searches.[113] The meaning of this limitation is more opaque and difficult to capture. Apparently, the intent was to suggest that even when the appropriate *kind* of privacy interest is implicated, particular circumstances might render it indefensible to claim an official deprivation of that interest.

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[107] *Id.*

[108] *Id.* at 350. The Court asserted that privacy was not the only Fourth Amendment value, observing that public seizures of persons and of property, for example, intrude upon interests other than privacy. *Id.*

[109] The recognition that privacy was a vital concern of the constitutional protection against unreasonable searches was hardly novel. Over eighty years earlier, in *Boyd*, the Court had expressed the view that protection of "the privacies of life" was central to the Fourth Amendment. *Boyd*, 116 U.S. at 630. *Katz* was revolutionarily different from *Boyd*, however, in prescribing a threshold analysis in which the critical decision hinged on whether privacy was violated.

[110] *Katz*, 389 U.S. at 350.

[111] *Id.* (emphasis added).

There is ample reason to applaud the constitutional perspective adopted by the *Katz* majority and the reformation in threshold doctrine that resulted.[114] There is also reason to bemoan the serious deficiencies in the guidance provided by the *Katz* opinion. Because the reach of the Fourth Amendment was to depend on whether the government intruded on certain kinds of justifiable privacy interests, it is vital to have an accurate idea of the character of the privacy that is constitutionally safeguarded and of the bases for deeming assertions of privacy justifiable or unjustifiable. The Court provided little, if any, insight concerning these critical issues. It raised the questions, but left their resolution to the future. A new threshold era had begun, but the shape it would take was yet to be determined.

B. *The Evolution and Development of* Katz's *Interest-Oriented Threshold Doctrine*

The Court has never directly revisited the question of the "kinds of intrusion on privacy" that are the object of Fourth

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[112] The Court observed that other privacy interests could find protection from other legal sources. *See id.* at 350-51 & n.5 (noting that "[o]ther provisions of the Constitution," the First, Third, and Fifth Amendments, for example, "protect personal privacy from other forms of governmental invasion," and asserting that "the protection of a person's *general* right of privacy . . . is . . . left largely to the law of the individual States").

[113] *Id.* at 353 (emphasis added).

[114] I agree with Justice Marshall that interpretation of a constitutional safeguard should not be restricted by the literal meaning of its words when preservation of the values and purposes furthered by the provision call for a more expansive construction. *See* United States v. Oliver, 466 U.S. 170, 186-87 (1984) (Marshall, J., dissenting) (arguing that constitutional safeguards should be interpreted to effectuate their purposes).

Amendment concern. Considering the theoretical and practical significance of that issue–and the helpful guidance an answer would provide–the failure to pinpoint the nature of the privacy interests that define the scope of constitutional regulation is somewhat disconcerting. The good news is that the Court has implicitly identified the types of intrusions on privacy that matter. The holdings, reasoning, doctrinal criteria, and language of a number of post-*Katz* threshold opinions–many of which have involved claims that exploitations of technology amounted to searches–establish that constitutional protection against unreasonable searches is primarily designed to protect the people's ability to keep information about their lives confidential.[115] The core value is, in essence, an interest in *secrecy*—in not having the details of our lives learned or exposed against our wishes.[116] The Framers prized this aspect of "the right to be let alone"[117] as an essential foundation of a free society, and gave it a central place among the basic liberties enshrined in the Bill of Rights. When a government activity deprives a person of this interest in "informational privacy" or confidentiality, that activity is deemed a search.[118]

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[115] There may be other "privacy" interests—for example, the interest in quiet repose in one's home, *see* Tomkovicz, *supra* note 19, at 666 n.87, and the interest in maintaining control over one's own body, *see* Winston v. Lee, 470 U.S. 753, 766 (1985); Schmerber v. California, 384 U.S. 757, 771-72 (1966)—that are also concerns of the Fourth Amendment. It is clear, however, that confidentiality is the dominant privacy interest that underlies the guarantee's protection against searches.

[116] *See* United States v. Jacobsen, 466 U.S. 109, 119-20 (1984) (concluding that agent's reopening of package already opened by private party was not a search because there "was a virtual certainty" that the agent's conduct "would not tell him anything more than he already had been told" and "enabled the agent to learn nothing that had not previously been learned"); United States v. Karo, 468 U.S. 705, 715 (1984) (holding beeper monitoring to be a Fourth Amendment search because it revealed "a critical fact about the interior of the premises that the Government . . . could not have otherwise obtained without a warrant"); *id.* at 727 (O'Connor, J., concurring in part and concurring in the judgment) (contending that a homeowner who allows another's belonging into his home does not suffer a privacy loss when a beeper locates the belonging because "[i]t is simply not *his* secret that the beeper is disclosing"); Smith v. Maryland, 442 U.S. 735, 743 (1979) (suggesting that telephone subscribers do not have "any general expectation that the numbers they dial will remain *secret*") (emphasis added).

[117] *Olmstead*, 277 U.S. 438, 478 (Brandeis, J., dissenting).

[118] For a more complete discussion of the character of this "privacy" interest,

This interpretation of Fourth Amendment values seems consistent with the historical impetus for that guarantee. The invasions known to the Framers violated privacy by breaching confidentiality and uncovering secrets hidden within homes and other enclosed spaces. Those physical intrusions gained access to concealed information about the colonists' lives by piercing barriers that safeguarded that information. When the authorities learned what the people possessed, did, and even thought within their homes, privacy in this most basic sense was lost. Logically, it seems sensible to conclude that searches were objectionable primarily because they breached secrecy. The sphere of confidentiality preserved by restricting those searches furnished a critical foundation for the ability to live full and genuinely free lives.[119]

The other critical question raised by *Katz*–when does an individual have a *justifiable* claim that a privacy interest protected by the Fourth Amendment has been violated–has received a considerable amount of direct attention from the Supreme Court in the thirty-five years since *Katz*. Once again, much of that attention has been directed toward disputes over whether a particular technological enhancement of human capacities is subject to Fourth Amendment control. While the doctrinal scheme that has emerged from this attention may not be coherent, complete, or wholly consistent, it is intriguing, extensive, and reflective of the view that deprivations of secrecy are the core constitutional concern. A cursory summa-

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see Tomkovicz, *supra* note 19 at 663-67, 669-70; *see also* JEFFREY ROSEN, THE UNWANTED GAZE 15 (2000) (describing "a more focused vision of privacy that has to do with our ability to control the conditions under which we make different aspects of ourselves accessible to others"); Froomkin, *supra* note 16, at 1463 (using the phrase "'informational privacy' as a shorthand for the ability to control the acquisition or release of information about oneself.").

[119] For a more complete discussion of how an entitlement to keep information secret enables other liberties to flourish, see Tomkovicz, *supra* note 19, at 667-77; *see also* Rosen, *supra* note 118, at 12 (suggesting that "[f]reedom is impossible in a society that refused to respect" privacy); *id.* at 215-17 (maintaining that "there are personal costs to the erosion of privacy" because privacy "is important . . . to allow individuals to form intimate relationships," privacy "is necessary . . . to protect important social relationships," and privacy plays a significant role in "the development of human individuality" by providing a "refuge . . . from the overwhelming pressures toward social conformity").

ry of that doctrine follows. More attention will be devoted to the most germane details in the discussion of the Court's threshold technology decisions.

In a concurring opinion in *Katz*, Justice Harlan maintained that the Fourth Amendment protects "reasonable expectation[s] of privacy"[120] and that there were two prerequisites for a reasonable expectation. First, a person must "have exhibited an actual (subjective) expectation of privacy."[121] Second, "the expectation [must] be one that society is prepared to recognize as 'reasonable.'"[122] Just one year after *Katz*, a majority of the Court adopted Harlan's description of the Fourth Amendment's object of protection as "reasonable 'expectation[s] of privacy.'"[123] Eleven years after that, the Court warmly embraced Harlan's two-pronged inquiry for ascertaining whether a search has occurred.[124] That basic doctrine, as refined by additional criteria for determining whether society is prepared to recognize a particular expectation as reasonable, remains the Court's "lodestar"[125] for making Fourth Amendment threshold determinations.[126]

The first inquiry demanded by the Harlan approach is whether a person has manifested an "actual (subjective) expectation of privacy."[127] The Supreme Court has paid little attention to the demand, and at times has ignored it entirely.[128] Moreover, the Court has spoken somewhat inconsistently and ambiguously about the nature of this demand. There are indications that the relevant question is whether the *particular individual* in a case actually expected privacy.[129] On the other hand, one can find support for the view that the proper inquiry is whether "people in general" in the same situation expect privacy.[130] Moreover, it is not clear whether the first prong focuses on expectations of privacy in general, from everyone, or on expectations of privacy from governmental officials.[131]

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[120] *Katz*, 389 U.S. at 360 (Harlan, J., concurring).

[121] *Id.* at 361.

[122] *Id.*

[123] Terry v. Ohio, 392 U.S. 1, 9 (1968) (quoting *Katz*, 389 U.S. at 360 (Harlan, J., concurring)).

[124] Smith v. Maryland, 442 U.S. 735, 740 (1979).

[125] *Smith*, 442 U.S. at 739.

[126] The decision to give the reasonable expectation of privacy doctrine control over the threshold of the Fourth Amendment has not gone unchallenged. *See* Minnesota v. Carter, 525 U.S. 83, 97 (1998) (Scalia, J., concurring) (contending that the "self-indulgent" reasonable expectation of privacy standard, when "employed . . . to determine whether a 'search or seizure . . . ' has *occurred* (as opposed to whether that 'search or seizure' is an 'unreasonable' one), . . . has no plausible foundation in the text of the Fourth Amendment").

[127] The author of the actual expectation of privacy requirement later cast doubt on the validity of that demand, suggesting in a post-*Katz* opinion that the threshold inquiry "must . . . transcend the search for subjective expectations or legal attribution of assumptions of risk." United States v. White, 401 U.S. 745, 786 (1971) (Harlan, J., dissenting).

There is no good theoretical or practical reason for retaining the actual expectation prerequisite. That inquiry has never been determinative in a Supreme Court threshold decision. That may be because any factor that leads to the conclusion that an individual has not manifested a subjective privacy expectation also supports the conclusion that society is unprepared to deem an expectation reasonable. The inquiry is superfluous or duplicative, at best. At worst, it has the potential to mislead lower courts into denying legitimate Fourth Amendment claims.[132] Fourth Amendment threshold doctrine could only be improved by elimination of the "actual (subjective) expectation of privacy" demand.[133]

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[128] *See infra* note 130.

[129] *See* California v. Ciraolo, 476 U.S. 207, 211-12 (1986) (indicating that the question was whether "respondent . . . manifested a subjective expectation of privacy from *all* observations of his backyard"); Rawlings v. Kentucky, 448 U.S. 98, 104-06 (1980) (concluding that "petitioner had no legitimate expectation of privacy" in an acquaintance's purse in part because he admitted "that he did not believe that [the] purse would remain free from governmental intrusion"); *Smith*, 442 U.S. at 743, 745 (stating that "even if petitioner did harbor some subjective expectation" of privacy, it was not reasonable and concluding "that petitioner in all probability entertained no actual expectation of privacy").

[130] *See Smith*, 442 U.S. at 742, 743 (suggesting that the question is whether "people in general entertain any actual expectation of privacy in the numbers they dial" and referring to the actual "expectations of telephone users in general").

[131] The analysis in *Smith* focused on expectations of privacy from the phone company, not from the government. In the other cases that include any discussion of the actual expectations prong, there is no indication that whether one has an expectation of privacy vis-a-vis the authorities is relevant. The impression created is that the absence of an actual privacy expectation vis-a-vis any particular person could defeat a Fourth Amendment threshold claim.

[132] *See, e.g.*, United States v. Robinson, 62 F.3d 1325, 1328 (11th Cir. 1995)

(stating that to determine whether thermal imaging of a home was a search, the "focal issue [was] whether [the home dweller] had a subjective expectation of privacy in the *heat* generated by his indoor marijuana cultivation" and finding that he had "none"); United States v. Penny-Feeney, 773 F. Supp. 220, 226 (D. Haw. 1991) (holding that thermal imaging of residence was not a search in part because "defendants did not manifest an actual expectation of privacy in the heat waste [detected] since they voluntarily vented it outside"); LaFollette v. Commonwealth, 915 S.W.2d 747, 749 (Ky. 1996) (concluding that thermal imaging of residence was not a search in part because the "condition of appellant's residence offered no expectation of privacy as to heat emission").

[133] In form, the two questions described by Justice Harlan impose independent, conjunctive requirements. For a search to be found, both must be answered affirmatively. In substance, however, the first question–the "actual expectation" inquiry–has not played a meaningful role in threshold analysis. It has determined the outcome of none of the many threshold opinions of the Court since *Katz*. In the vast majority of those cases, the Court has acted in one of two ways. First, it has ignored the inquiry and passed immediately to the second question. *See, e.g.*, Hudson v. Palmer, 468 U.S. 517, 525-26 (1984); United States v. Knotts, 460 U.S. 276, 281-82 (1983). Second, the Court has paid no more than passing lipservice to the requirement, quickly conceding or assuming that an individual actually expected privacy. *See, e.g.*, Bond v. United States, 529 U.S. 334, 338 (2000); California v. Greenwood, 486 U.S. 35, 39 (1988); *Ciraolo*, 476 U.S. at 211. The sole opinion with an extended analysis to the subjective privacy expectation of the claimant concludes that he had no such expectation, but then proceeds to reason that "even if" he did, it was not an expectation society was prepared to recognize as reasonable. *See Smith*, 442 U.S. at 742-43. The Court's opinions seem to implicitly acknowledge the uselessness of the actual expectations criterion.

In fact, there is a logical predicate for denying constitutional protection to people who do not actually expect privacy. If individuals conduct their lives in ways that show that they have no confidentiality interest in particular matters–when they choose to "publicize" information by words or deeds–it would be irrational to recognize a claim that the government "breached" their privacy by receiving that information. A person who truly fails to protect or who decides to reveal secrets can hardly charge those who see, hear, or otherwise learn of those secrets with a violation of privacy. Thus, "[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection." *Katz*, 389 U.S. at 351. Similarly, what a person proclaims from a street corner soapbox or leaves exposed on the back seat of her car can be heard or seen without violating any genuine interest in confidentiality.

Nonetheless, an appropriate Fourth Amendment result can be reached in such cases without the actual expectation inquiry. The second *Katz* criterion–whether society will recognize an expectation as reasonable–will deny protection based on the same conduct that demonstrates the absence of an actual expectation. In *Smith v. Maryland*, for example, in holding that the use of a "pen register" with telephone company cooperation to record numbers dialed from a home phone was not a search, the Court concluded that there was no actual

The second inquiry–whether society is prepared to recognize a privacy expectation as reasonable–has been determinative in the Court's decisions.[134] This inquiry has not been guided by actual assessments of society's attitudes, but instead by objective indicia of whether it is rational to validate an assertion that officials have deprived an individual of a cognizable interest in secrecy. The major, recurrent criteria are easily described.

Society is not prepared to recognize the reasonableness of an expectation of privacy if an individual has knowingly exposed the putatively private matter to the public[135] or has voluntarily conveyed the supposedly secret facts to a third party who has agreed to convey those facts to the authorities.[136] Society will not honor expectations of privacy if the government's conduct that is contested could not reveal any

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expectation of privacy and that society was not prepared to recognize any expectation as reasonable for essentially the same reason–the claimant had knowingly and voluntarily chosen to convey the information acquired to the telephone company. *Smith*, 442 U.S. at 742-44.

The actual expectation prong is dangerous and potentially destructive of constitutional liberty insofar as it could enable the government or others to diminish the scope of Fourth Amendment protection. Announcements that privacy invasions will occur or the actual occurrence of conduct that invades privacy interests could lead the people not to actually expect privacy. For that reason, the Court has observed that the "problems inherent in [a subjective expectation] standard are self-evident." *See Hudson*, 468 U.S. at 525 n.7. In addition, the Court has declared that in cases where subjective expectations are "'conditioned' by influences alien to well-recognized Fourth Amendment freedoms," the absence of subjective expectations would be irrelevant and, instead, "a normative inquiry would be proper." *Smith*, 442 U.S. at 741 n.5. There is yet another peril in the actual expectation inquiry, an ever-present risk that courts will misinterpret and misapply the criterion, declaring that no actual expectations exist in situations where it is both illogical and constitutionally indefensible to do so.

In apparent recognition of the unnecessary or redundant nature of the actual expectations inquiry, in subsequent cases that could have adhered to the logic of *Smith v. Maryland*, the Court has declined to conclude that a claimant's willingness to expose his actions to the public or convey information to a third party demonstrated an absence of actual privacy expectations. *See Greenwood*, 486 U.S. at 39-41; *Ciraolo*, 476 U.S. at 211-12, 213-14; *Knotts*, 460 U.S. at 281-83.

[134] The "Court has always emphasized the second of the[] two requirements." *Hudson*, 468 U.S. at 525 n.7.

[135] *See Greenwood*, 486 U.S. at 40-41; *Knotts*, 460 U.S. at 281-82.

[136] *See* United States v. Miller, 425 U.S. 435, 442-44 (1976); *White*, 401 U.S. at 749-50.

information at all,[137] could only reveal truly insignificant information,[138] or could only reveal information about the nature or presence of an illegitimate substance (*i.e.*, contraband).[139] Moreover, if there is no societal interest in protecting the privacy of the information that could be disclosed by the government's actions, society will not affirm the reasonableness of an individual's actual expectation of privacy.[140] Some, if not all, of these variables—if properly understood and applied—seem to be logically defensible indicia of whether constitutionally cognizable privacy interests are imperiled.

The development of the reasonable expectation of privacy threshold doctrine has occurred in a piecemeal, *ad hoc* fashion. No overarching scheme or analytical framework is evident in the Court's threshold decisions. The Court has never proffered a general vision of the nature of reasonable expectations of privacy or the character of the criteria that ought to dictate whether a search has occurred. Nonetheless, the rich array of threshold issues addressed over a thirty-five year span has produced a formidable and informative body of doctrine. Having established the legal context in which confrontations between technology and the Fourth Amendment arise, it is now time to turn to those confrontations.

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[137] *See* United States v. Karo, 468 U.S. 705, 712 (1984).

[138] *See* United States v. Jacobsen, 466 U.S. 109, 123 (1984).

[139] *See* United States v. Place, 462 U.S. 696, 707 (1983); *Jacobsen*, 466 U.S. at 123.

[140] There are three less significant criteria that have appeared in some threshold opinions. None has ever had decisive impact. On occasion, the Court has suggested that society is less prepared to recognize privacy interests if doing so will interfere with effective law enforcement. *See Hudson*, 468 U.S. at 526-27; Oliver v. United States, 466 U.S. 170, 182 n.13 (1984); *White*, 401 U.S. at 753; *see also* Tomkovicz, *supra* note 19, at 660. On the other hand, it has indicated that society is more inclined to honor privacy expectations if a claimant has property rights in the area involved. *See* Smith v. Maryland, 442 U.S. 735, 741 (1979); *Miller*, 425 U.S. at 440-41; *see also* Tomkovicz, *supra* note 19, at 657-58. The Court has also suggested that society is more likely to honor privacy expectations if a physical invasion or intrusion of some sort has occurred. *See* Dow Chemical Co. v. United States, 476 U.S. 227, 237 (1986); *Ciraolo*, 476 U.S. at 213; *Karo*, 468 U.S. at 714; *Smith*, 442 U.S. at 741; *see also* Tomkovicz, *supra* note 19, at 658-59. The impediment to effective law enforcement criterion seems more appropriately factored in at the reasonableness stage of Fourth Amendment analysis–not in the threshold inquiry. The possession of a property interest or the occurrence of a physical intrusion might provide support for a violation of privacy claim. On the other hand, neither the absence of a property interest nor the lack of a physical intrusion should ever defeat a privacy claim in the post-*Katz* era.

III. THE THRESHOLD TECHNOLOGY DECISIONS: A DESCRIPTION, ANALYSIS, AND CRITIQUE OF THE SUPEME COURT'S UNDERSTANDING

The *Katz* revolution in threshold doctrine was precipitated by a head-on collision between technology and the Fourth Amendment and a recognition of the constitutional dangers posed by innovative enhancements of human sensory abilities.[141] This part of the article devotes attention to the Supreme Court's post-*Katz* threshold cases involving exploitations of the tools provided by science and technology. I classify ten cases within this category.[142] In eight of those decisions, the Court ruled that the Fourth Amendment did not regulate the government's conduct.[143] In the other two, both of which involved efforts to learn about activities inside private homes, the Court found Fourth Amendment searches.[144] After a brief chronological review of the relevant cases, I categorize the decisions, analyzing and evaluating the lessons each teaches regarding the relationship between the Fourth Amendment and technology.[145]

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[141] The recognition was implicit in the majority opinion, not the subject of explicit discussion. *See generally* Katz v. United States, 389 U.S. 347 (1967). Justice Harlan's well-known description of *Olmstead's* "physical intrusion" requirement as "bad physics as well as bad law" was also an acknowledgment of the perils created by scientific and technological advances in surveillance capabilities. *See Katz*, 389 U.S. at 362 (Harlan, J., concurring).

[142] *See infra* notes 146-201 and accompanying text. I define technology broadly to include any device, tool, mechanism, or method that in some way augments or enhances ordinary human capacities. As will become clear later, I do not believe that the Fourth Amendment should be concerned with every sort of expansion of human potential afforded by science and technology. A mechanism should not trigger constitutional scrutiny unless it might alter human capacities in some way that threatens the interests sheltered by the Fourth Amendment. Consequently, devices that somehow increase ordinary human abilities to gain access to confidential or secret information–i.e., those that can threaten core Fourth Amendment privacy interests–are appropriate objects of Fourth Amendment attention. Devices that enable more efficient communication or speedier travel, for example, but have no potential impact on any interest that the Fourth Amendment was designed to protect, seem well beyond the scope of constitutional concern.

[143] *See infra* notes 146-67, 172-90 and accompanying text.

[144] *See infra* notes 168-201 and accompanying text. In what can best be characterized as a "curious" pattern without legal significance, all three holdings that

A. *A Chronological Summary of the Post-*Katz *Threshold Technology Decisions*

1. *United States v. White*: Electronic, Participant-Aided Monitoring of Conversations

The first threshold technology case reached the Court in 1971, just four years after *Katz*. In *United States v. White*,[146]

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technological exploitation is governed by the Fourth Amendment have involved individuals with short surnames beginning with the letter "K," and the decisions have occurred at precisely seventeen-year intervals.

[145] The fact that eighty percent of the decisions have found technological exploitation to be beyond the reach of the Fourth Amendment is noteworthy. That statistic alone does not establish bias or error by the Court. It is entirely possible that the sort of claim to reach the Court has typically involved creative efforts to stretch the borders of the Fourth Amendment. The pattern of decisions does make it clear, however, that any fear that the *Katz* approach to threshold doctrine would unjustifiably expand the boundaries of the Fourth Amendment was unfounded. *See Katz*, 389 U.S. at 373-74 (Black, J., dissenting) (expressing a fear that the Court had transformed the Fourth Amendment into a tool for restricting every governmental action with any impact on privacy, broadly-defined). The reasonable expectation of privacy doctrine has most certainly not produced widespread or suffocating constitutional control over official efforts to employ innovative surveillance tools. *Katz* is the *sole* decision in which a use of technology outside a home has been found to violate a reasonable expectation of privacy and thus to be a search. Moreover, not every potential threat to home privacy has prompted the Court to find Fourth Amendment coverage. *See, e.g.*, *Ciraolo*, 476 U.S. at 215 (aerial surveillance of residential curtilage held not to be a search); *Smith*, 442 U.S. at 745 (holding that pen register monitoring of numbers dialed from phone of a private residence was not a search). Although the *Katz* opinion did subject a previously unregulated use of technology to Fourth Amendment control and at least suggested that officials would be considerably less free to exploit the products of scientific progress, the doctrine that has grown out of that decision has afforded generous breathing space for unfettered use of novel crime-detecting technologies. For the view that it has afforded too much breathing space for technological and other threats to privacy, see Rosen, *supra* note 118, at 34 (arguing that the Court has "pretend[ed] that all sorts of dramatic intrusions on privacy . . . [aren't] really searches . . . in the first place" and that "[t]he result" has been "a legal climate that constricted the constitutional protections for privacy at the very moment that techniques of surveillance were growing more invasive").

[146] 401 U.S. 745 (1971).

government agents listened in on conversations by means of a radio transmitter that was concealed on the person of a willing, cooperative informant.[147] By means of this electronic eavesdropping, they heard White's incriminating statements regarding narcotics offenses.[148] The Supreme Court ruled that the agents did not conduct a search when they electronically eavesdropped on the conversations.[149]

2. *Smith v. Maryland*: Pen Register Perception and Recordation of Numbers Dialed from a Home Telephone

Eight years passed before another clash between technology and the Fourth Amendment brought a threshold issue to the Court. In *Smith v. Maryland*,[150] at the request of law enforcement agents, the telephone company installed a "pen register"[151] at its central office in order to record the numbers dialed from the defendant's residential telephone.[152] The device revealed a call placed to the telephone number of a robbery victim.[153] That call and other evidence acquired as a product of the pen register surveillance were used to convict the defendant of robbery.[154] The Supreme Court rejected the claim that the use of the pen register to detect the dialed numbers violated a reasonable expectation of privacy, holding that it did not constitute a search.[155]

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[147] *White*, 401 U.S. at 747.

[148] *Id.* at 746-47.

[149] *Id.* at 754.

[150] 442 U.S. 735 (1979).

[151] *Smith*, 442 U.S. at 737. "'A pen register is a mechanical device that records the numbers dialed on a telephone by monitoring the electrical impulses caused when the dial on the telephone is released. It does not overhear oral communications and does not indicate whether calls are actually completed.'" *Id.* at 736 n.1 (quoting United States v. N.Y. Tel. Co., 434 U.S. 159, 161 n.1 (1977)).

[152] *Id.* at 737.

[153] *Id.*

[154] *Id.* at 737-38.

[155] *Id.* at 745-46.

3. *United States v. Knotts*: Beeper-Assisted Tracking of Public Movements

Four years later, another conflict between the Fourth Amendment and technology caught the Court's eye. *United States v. Knotts*[156] introduced the Court to a novel technological investigatory tool—a tracking "beeper."[157] Officers who suspected Knotts and others of involvement in narcotics manufacturing secured the consent of a chemical company to install a beeper in a container that the company subsequently sold to one of Knotts' cohorts.[158] By both visual surveillance and electronic monitoring of the beeper, officers tracked the car in which the chloroform container had been placed.[159] They lost both visual contact and the beeper signal at one point, but were subsequently able to locate the signal, which indicated that the container had come to rest in the area of a cabin occupied by Knotts.[160] Based on the information obtained from the surveillance and additional facts, officers obtained a warrant, searched the cabin, and discovered a drug manufacturing operation and contraband narcotics.[161] The Supreme Court unanimously held that the use of the beeper to follow and locate the can did not violate a reasonable expectation of privacy and, therefore, was not a search.[162]

4. *United States v. Place*: A Sniff of Luggage by a Drug-Detecting Canine

The same year, the Court addressed yet another threshold technology issue.[163] In *United States v. Place*,[164] the authorities used a narcotics-detecting canine to sniff luggage belonging to a man who had flown from Florida to New York.[165] After the dog reacted positively to one of two bags, the officers applied for and secured a search warrant and found a substantial amount of cocaine inside.[166] The Court opined that the use of the trained dog's heightened olfactory abilities to determine whether contraband was inside the luggage did not cross the Fourth Amendment threshold and trigger constitutional scrutiny.[167]

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[156] 460 U.S. 276 (1983).

[157] "A beeper is a radio transmitter . . . which emits periodic signals that can be picked up by a radio receiver." *Knotts*, 460 U.S. at 277.

[158] *Knotts*, 460 U.S. at 278.

[159] *Id.*

[160] *Id.*

[161] *Id.*

[162] *Id.* at 285.

[163] While one might question whether drug-sniffing canines are a technological development, I include them in this section because they constitute a novel "scien-

5. *United States v. Karo*: Beeper Monitoring of In-Home Activities

In 1984, the Court again explored the relationship between tracking beepers and the Fourth Amendment. In *United States v. Karo*,[168] government agents installed a beeper in a

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tific" development that enhances normal human capacities to perceive concealed, otherwise confidential information. Moreover, the Court's treatment of this technique has significant implications for technological devices with similar abilities to augment human faculties and reveal concealed, arguably private information. *See, e.g.*, Bob Mitchell, *Electronic 'Drug Dogs,'* TORONTO STAR, Apr. 16, 2001, at 1 (discussing the mechanics of an "electronic sniffer" that can detect drug residues on swabbed objects); Tom Godfrey, *Customs Looks At Scanner; Hi-Tech Device in U.S. Detects Trace Bits of Drugs, Explosives*, TORONTO SUN, May 31, 2000, at 3 (discussing "American field tests on a hi-tech scanner that detects traces of drugs and explosives on passengers"); Paul W. Valentine, *Md. Receives Federal Drug-Fighting Grant*, WASH. POST, Jan 6, 1999, at A12 (discussing the use of "state-of-the-art ion-scan machines to detect traces of drugs on the clothing of people entering" prisons).

[164] 462 U.S. 696 (1983).

[165] *Place*, 462 U.S. at 696.

[166] *Id.* The Court held that the government had violated the defendant's Fourth Amendment rights because it had seized his luggage for an unreasonably prolonged period based on a reasonable suspicion that it contained contraband. *See id.* at 709-10. That holding is not pertinent here.

[167] More recently, in *City of Indianapolis v. Edmond*, the Court affirmed the threshold conclusion reached in *Place*, extending it to dog sniffs of vehicles on public roads. City of Indianapolis v. Edmond, 531 U.S. 32, 40 (2000). Even though the Court's conclusions in both *Place* and *Edmond* can be characterized as dicta, they leave no room for doubt regarding the Court's attitude toward dog sniffs of publicly-situated luggage and vehicles. While *Edmond* is yet another threshold technology decision by the Court, I do not discuss it separately because it adds nothing to the analysis set forth to justify the conclusion in *Place*.

[168] 468 U.S. 705 (1984).

can of ether, substituted it for one ordered by the respondents, and monitored the signal from the beeper.[169] They located the can of ether in various locations, including private dwellings.[170] On two occasions they were able to ascertain that the can had not left, but had remained inside a particular residence.[171] The question presented[172] was "whether the monitoring of a beeper in a private residence, a location not open to visual surveillance," infringed on the Fourth Amendment interests "of those who have a justifiable interest in the privacy of the residence."[173] For the first time since its decision in *Katz*, the Court held that official exploitation of a technological tool violated privacy and constituted a Fourth Amendment search.[174]

6. *United States v. Jacobsen*: Chemical Field Tests to Detect Contraband

The very same year, the Court resolved another threshold technology issue. In *United States v. Jacobsen*,[175] a federal agent subjected a trace of the powder found in a package to a chemical test that involved placing the powder in three test tubes of liquid.[176] The liquids in the test tubes took on a sequence of colors that indicated that the powder was cocaine.[177] The Supreme Court concluded that the chemical field test used to identify the substance was not a search because it did not violate a reasonable expectation of privacy.[178]

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[169] *Karo*, 468 U.S. at 708.

[170] *Id.* at 708-10.

[171] *Id.* at 709-10.

[172] The *Karo* Court also discussed whether the "transfer" of a beeper-infected object to an individual constitutes a search or a seizure, holding that it constituted neither sort of Fourth Amendment activity. *Id.* at 711-13.

[173] *Id.* at 714.

[174] *Id.* at 721.

[175] 466 U.S. 109 (1984).

[176] *Jacobsen*, 466 U.S. at 111, 112 n.1. The Court also addressed the issue of whether the federal agent's "reopening" of the package that had already been opened by Federal Express employees constituted a search. *Id.* at 119. That threshold question is not discussed here because it did not involve use of a technological tool.

[177] *Id.* at 112 n.1.

7. *California v. Ciraolo*: Naked Eye Aerial Surveillance Of Residential Curtilage

Two years later, the Court confronted the Fourth Amendment implications of using aircraft to fly over and see into backyards. In *California v. Ciraolo*,[179] the police received a tip that the respondent was growing marijuana in his backyard.[180] Because the two fences erected around the yard prevented ground-level observation, officers took to the air, and from an altitude of 1000 feet were able to "readily identif[y] marijuana plants."[181] Based on the tip and these observations, they obtained a search warrant, executed it, and seized seventy-three marijuana plants.[182] A five-Justice majority of the Court was persuaded that the aerial surveillance of the yard did not qualify as a Fourth Amendment search under the *Katz* test.[183]

8. *Dow Chemical Co. v. United States*: Photographic Aerial Surveillance Of Commercial Premises

In a companion case to *Ciraolo*, the Court further addressed the constitutional ramifications of aerial surveillance. *Dow Chemical Co. v. United States*[184] involved aerial surveillance of a chemical manufacturing complex by the Environmental Protection Agency.[185] From various altitudes within navigable airspace, a "commercial aerial photographer, using a standard floor-mounted, precision aerial mapping camera" took photographs of Dow's manufacturing premises.[186] The photographs yielded information not visible to unaided eyes.[187] When Dow became aware of this activity, the company sought and obtained an injunction against the EPA that barred further aerial photography.[188] The same five Justices that formed the *Ciraolo* majority concluded, however, that neither the use of the aircraft nor the use of the camera brought the surveillance within the sphere of Fourth Amendment regulation.[189]

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[178] *Id.* at 126.
[179] 476 U.S. 207 (1986).
[180] *Ciraolo*, 476 U.S. at 209.
[181] *Id.* at 209.
[182] *Id.*
[183] *Id.* at 215.
[184] 476 U.S. 227 (1986).
[185] *Dow Chem. Co.*, 476 U.S. at 229.
[186] *Id.* at 229.

9. *Florida v. Riley*: Naked Eye Surveillance of Residential Property By Helicopter

Three years passed before the Court issued its third pronouncement on the interface between aerial surveillance and the Fourth Amendment. *Florida v. Riley*[190] involved naked-eye observations through openings in the roof and sides of a greenhouse situated on residential property.[191] An officer made the observations while circling over the property in a helicopter at an altitude of four hundred feet.[192] He saw what he believed was marijuana, obtained a search warrant based on his observations, and found marijuana growing in the greenhouse.[193] A majority of the Court again concluded that the officer had not ventured across the border defining Fourth Amendment territory.[194] His conduct was not a search.[195]

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[187] *Id.* at 230.

[188] *Id.*

[189] *Id.* at 239.

[190] 488 U.S. 445 (1989).

[191] *Riley*, 488 U.S. at 448.

[192] *Id.*

[193] *Id.* at 448-49.

[194] *Id.* at 450.

[195] *Id.*

10. *Kyllo v. United States*: Thermal Imaging of a Home

The 1990s produced no Supreme Court threshold technology decisions. Early in the new millennium, however, the Court decided to resolve an issue that had been percolating in the lower courts for years. In *Kyllo v. United States*,[196] law enforcement officers who suspected that the petitioner was growing marijuana in his home decided to scan the dwelling with a "thermal imager"—a technological tool that could detect the relative amounts of infrared radiation emanating from the dwelling.[197] The thermal scan showed that some areas of the home "were relatively hot compared to the rest of the home and substantially warmer than neighboring homes."[198] An officer's inference that the heat differentials resulted from the use of lights to grow marijuana indoors and other facts furnished the basis for a search warrant for the dwelling.[199] Inside, officers discovered a cultivation enterprise with over 100 marijuana plants.[200] For only the second time in the reasonable expectation of privacy threshold era, a majority concluded that an exploitation of technology did qualify as a search and, therefore, needed to satisfy the reasonableness requirement of the Fourth Amendment.[201]

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[196] 533 U.S. 27 (2001).

[197] *Kyllo*, 533 U.S. at 29-30.

[198] *Id.* at 30.

[199] *Id.*

[200] *Id.*

[201] *Id.* For scholarly discussions and analyses of *Kyllo*, see Gregory S. Fisher, *Cracking Down on Soccer Moms and Other Urban Legends on the Frontier of the Fourth Amendment: Is It Finally Time to Redefine Searches and Seizures?*, 38 WILLAMETTE L. REV. 137 (2002); Richard H. Seamon, Kyllo v. United States *and the Partial Ascendance of Justice Scalia's Fourth Amendment*, 79 WASH. U. L.Q. 1013 (2001).

B. Categorizing and Understanding the Influential Variables–An Assessment of the Constitutional Logic Underlying the Court's Threshold Technology Decisions

As mentioned earlier, the *Kyllo* case is the reason for my involvement in this project. The Court's decision in *Kyllo* is also the inspiration for this symposium devoted to the relationship between technology and the Fourth Amendment. *Kyllo* is a remarkable decision because the Court reached a conclusion out of step with the predominant view of the lower courts.[202] It is also remarkable because of the unpredictable configuration of five Justices who constituted the majority.[203] The most remarkable, even astounding, aspect of *Kyllo*, however, is that it is the *first* majority opinion by the Supreme Court to directly address the general subject of the relationship between technological enhancements of human capacities and the scope of Fourth Amendment protection.[204] *Kyllo* is by no means a comprehensive discourse upon the subject of when novel developments ought to trigger constitutional scrutiny. It does not fill the longstanding analytical and doctrinal voids. Nonetheless, the opinion takes a long overdue and significant first step by both explicitly and implicitly acknowledging the importance of understanding the tension that exists and arriving at sensible Fourth Amendment resolutions of the issues raised by technological enhancements of human capacities.[205]

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[202] *See, e.g.*, United States v. Robinson, 62 F.3d 1325, 1330 (11th Cir. 1995), *cert. denied*, 517 U.S. 1220 (1996) (determining that thermal imaging was not a search because it did not reveal intimate details within the home and because there was no intrusion into the home); United States v. Ishmael, 48 F.3d 850, 857 (5th Cir.), *cert. denied*, 516 U.S. 818 (1995) (holding that the use of thermal imager was not activity governed by Fourth Amendment because it was "passive and non-intrusive" and did not disturb the sanctity of home); United States v. Myers, 46 F.3d 668, 670 (7th Cir.), *cert. denied*, 516 U.S. 879 (1995) (thermal imaging was not a search because the home dweller failed "to conceal or contain the heat emissions" and the defendant's expectation of privacy was not reasonable); United States v. Ford, 34 F.3d 992, 997 (11th Cir. 1994) (finding that imager use was not search because it disclosed only "waste heat" that was exposed to public and did not reveal "specific activities" in home); United States v. Pinson, 24 F.3d 1056, 1058-59 (8th Cir.), *cert. denied*, 513 U.S. 1057 (1994) (determining that thermal imager use was not Fourth Amendment activity because "no intimate details of the home were observed and there was no intrusion upon the privacy of the individuals within").

[203] Justice Scalia authored the majority opinion which was joined by Justices Souter, Thomas, Ginsburg, and Breyer. *Kyllo*, 533 U.S. at 29. Justice Stevens wrote a somewhat surprising dissent, joined by Chief Justice Rehnquist and Justices O'Connor and Kennedy, in which he deemed the privacy interests at stake to be "implausible" and "trivial." *See Kyllo*, 533 U.S. at 44-45, 51 (Stevens, J., dissenting).

[204] Dissenting Supreme Court Justices have explored the general subject in cases decided both before and after *Katz*. *See, e.g.*, *Dow Chem. Co.*, 476 U.S. at 240, 247 (Powell, J., dissenting) (asserting that the *Dow* decision marked a re-

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treat from the standard adopted to ensure "that Fourth Amendment rights would retain their vitality as technology expanded the Government's capacity to commit unsuspected intrusions into private areas and activities" and "designed to ensure that the Fourth Amendment continues to protect privacy in an era when official surveillance can be accomplished without . . . physical penetration . . . or proximity"); *Ciraolo*, 476 U.S. at 218-19 (Powell, J., dissenting) (noting that *Katz* had recognized that a physical intrusion threshold standard "provides no real protection against surveillance techniques made possible through technology" because "[t]echnological advances have enabled police to see people's activities and associations, and to hear their conversations without being in physical proximity" and "to conduct intrusive surveillance without any physical penetration"); *Goldman*, 316 U.S. at 138-39 (Murphy, J., dissenting) (observing that "the conditions of modern life have greatly expanded the range and character of those activities which require protection from intrusive action by Government officials" and that "science has brought forth far more effective devices for the invasion of a person's privacy than the direct and obvious methods of oppression which were detested by our forebears and which inspired the Fourth Amendment"); *Olmstead*, 277 U.S. at 474 (Brandeis, J., dissenting) (predicting that the "progress of science in furnishing the government with means of espionage is not likely to stop," warning that the future may well bring scientific means of reproducing private papers without removing them "from secret drawers," of exposing "the most intimate occurrences of the home," and of venturing into the human mind, "exploring unexpressed beliefs, thoughts and emotions," and suggesting that the Constitution must be construed to provide "protection against such invasions of individual security").

[205] The majority observed that the question confronted was "what limits there are upon the power of technology to shrink the realm of guaranteed privacy," expressed concern over the erosion of home privacy that can result from "police technology," and announced a doctrine designed to "assure[] preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted." *Kyllo*, 533 U.S. at 34. Justice Scalia warned that adherence to the *Katz* Court's rejection of "a mechanical interpretation of the Fourth Amendment" was vital because a contrary approach "would leave the homeowner at the mercy of advancing technology . . . that could discern all human activity in the home." *Id.* at 35-36. Ultimately, the majority sought to develop a general standard that would protect constitutionally guaranteed privacy not only against the particular sort of thermal imager used in *Kyllo*, but also against "more sophisticated systems that [we]re already in use or in development." *Id.* at 36.

Until I became immersed in this project, I had the very distinct impression that the Supreme Court's threshold technology cases were a collection of *ad hoc* opinions that reflected no general conception of the relationship between technology and the Fourth Amendment's reach. The need and the opportunity to examine those cases more closely have altered my impression. I now perceive a number of basic, foundational premises underlying the Court's analyses. Some of those premises are eminently logical, while others are questionable. The most serious flaws in the Court's reasoning have been the failures to explore the implications of those premises in sufficient depth. The object of this part of the discussion is to explore those premises, to identify their logical underpinnings, and to pursue in detail the issues they raise. I have devised four categories to assist my explorations of the Court's threshold technology reasoning: revelatory behavior, informational content, the nature and character of the technology, and the location of the privacy interest.

1. The "Revelatory Behavior" Premises

Each of the factors and holdings classified within the "revelatory behavior" category rest essentially on the notion that a person suffers no violation or deprivation of confidentiality or secrecy if information about her life has been perceived or acquired because of the person's choice to reveal or expose that information. Exposure, disclosure, and publicity are the antitheses of privacy, confidentiality, and secrecy. For that reason, no Fourth Amendment interest in informational privacy is jeopardized when officials merely take advantage of a person's willingness to reveal or expose matters. According to this reasoning, if a person has engaged in the sort of revelatory conduct that forfeits any genuine interest in secrecy, it should not matter that technological means of acquisition have exploited that conduct.

The basic logic underlying the revelatory behavior category is persuasive. The government does not intrude on core Fourth Amendment privacy values by perceiving what a person chooses to reveal or by receiving what an individual chooses to convey.[206] As will be seen, however, applications of this basic logic to concrete situations give rise to subtle and difficult issues that require careful analysis. Care must be taken to avoid according revelatory behavior premises more influence in threshold determinations than is logically defensible. The Court's opinions, which reflect three variations on the revelatory behavior theme, have typically neglected critical issues. Facile, somewhat superficial, analyses have produced questionable conclusions in threshold technology cases.

a. The First Variation: The Technological Acquisition of Information Exposed and Accessible to Unaided Senses

The first variation on the revelatory behavior theme is the premise that no privacy violation occurs when technology is employed merely to perceive and acquire facts that ordinary, unenhanced human senses could also perceive and secure from lawful public vantage points. In *United States v. Knotts*,[207] the Court found that the use of a tracking beeper to monitor movements along public thoroughfares and arrivals at particular destinations did not violate reasonable expectations of privacy because the individuals being tracked "voluntarily conveyed" the information learned by means of the beeper to "anyone" in a public place "who wanted to look."[208] The Court observed that ordinary "[v]isual surveillance from public places . . . would have sufficed to reveal" everything disclosed by the beeper-assisted tracking of public movements.[209] Exposure of the details learned by a beeper to the unaided senses of members of the public defeats the legitimacy of any expectation that those facts will remain confidential. Because public exposure is inconsistent with privacy, it is irrational to accuse the government of breaching secrecy. Instead, officials have merely reaped the harvest of the traveler's willingness to "publicize" facts about her life. In such circumstances, the contention that society ought to respect an expectation of privacy is implausible.

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[206] In these situations, the government does not intrude on a credible interest in confidentiality. However, it is possible that there are other Fourth Amendment values that are jeopardized in revelatory behavior situations.

[207] 460 U.S. 276 (1983)

[208] *Knotts*, 460 U.S. at 281, 285.

[209] *Id.* at 282.

Knotts instructs that when a technological device capable of augmenting human perceptual capacities is employed to perceive no more than what *could have been* perceived lawfully by means of unsupplemented human senses, it does not jeopardize Fourth Amendment privacy interests and should not be subjected to constitutional regulation.[210] If simple visual observations of exposed movements from public places are not invasions of privacy—and no one would suggest that they are—then technological substitutes for unaided observations that detect nothing more than visual observations could capture are not invasions of privacy.[211] In such cases, exploitation of the technological device does not deprive an individual of a cognizable interest in secrecy. Instead, like the visual observations that are capable of sensing and learning the same details, the technological surveillance does no more than capitalize on the person's willingness to expose her life to public view.[212]

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[210] In *Knotts*, the beeper did in fact enable officers to accomplish what they had failed to accomplish with unaided senses. Evasive maneuvers by the individual being tracked had resulted in a "failure of the visual surveillance." *Id.* at 285. The radio transmitter made it possible to pick up a cold trail and to discern where the chemicals had come to rest. In the Court's view, what mattered was that an officer who had been able to follow the chemicals "at a distance throughout [the] journey *could have observed*" all of the information discerned by the monitoring beeper. *Id.* (emphasis added). Without explanation, the Court decided that the determinative question is not what the authorities "would [actually] . . . have been able to do . . . had they relied solely on their naked eyes" in a particular case. *Id.* Instead, the determination of whether a technological enhancement is governed by the Fourth Amendment turns on whether it would have been possible, in theory or in the abstract, to use naked senses to learn what the technological device enabled the authorities to learn. *Id.*

[211] The Court did not deny that beepers are capable of expanding human sensory capacities, enabling the perception of matters inaccessible to ordinary senses. Indeed, just one year later, in *United States v. Karo*, the Court made it clear that when beepers are used to enhance normal senses they can trigger Fourth Amendment scrutiny. United States v. Karo, 468 U.S. 705, 715 (1984). The reasoning of *Knotts* is that the potential to augment perception does not implicate the Fourth Amendment if a technological tool is actually used to perceive nothing more than senses could perceive. *See id.* I agree that the relevant question is how a particular form of technology has been used, not what it is capable of accomplishing.

The basic reasoning underlying the *Knotts* opinion seems sound.[213] It is difficult to take seriously a claim that one has a legitimate privacy interest in details one exposes to unaided eyesight in public places. The Framers' core objective—preserving a sphere of confidentiality—is not threatened when the authorities use their eyes or ears to learn those details. There would seem to be no greater threat when the authorities use technological devices to gain access to the same details. If a person's conduct really does expose facts about his life to others, the use of efficient surveillance tools to gain access to those facts does not deprive that person of any genuine interest in confidentiality. The revelatory behavior forfeits the privacy interest that might otherwise be protected. Technology is not being exploited in a manner that could shrink the scope of the privacy guaranteed by the Fourth Amendment.[214]

Two issues that the Court did not explore, however, raise serious questions about its reliance on revelatory behavior to reject the claim that beeper monitoring of public movements constitutes a search. The first issue is whether members of the public *actually do* use ordinary senses to perceive the information that an electronic tracking device perceives. The second issue is whether members of the public *actually could* use ordinary senses to perceive that information. Both issues are tied to the plausible assumption that there is more informational content in a comprehensive awareness of an individual's public movements than in the knowledge of each of the separate movements that constitute an entire journey.[215]

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[212] Two additional observations by the *Knotts* Court that reflect upon this article's central inquiry merit mention. The Court intimated that the devices that enhance human sensory faculties—*i.e.*, that enable human beings to exceed the limits of their ordinary perceptive powers—might not be of Fourth Amendment concern if the expansion of human capacities is minor or limited. *Id.* at 282. For this reason, the use of a searchlight or field glass to see what could not otherwise be seen would be unregulated. *See id.* at 283 (quoting United States v. Lee, 274 U.S. 559, 563 (1927)). On the other hand, the Court also suggested that the "abus[ive]" use of tools that merely accomplish what could conceivably be accomplished by unaided senses might fall under the Fourth Amendment's regulatory regime. *Id.* at 284. According to the Court, "different constitutional principles" from those that governed in *Knotts* might apply if officers were to use electronic tracking devices to implement "dragnet-type law enforcement practices" such as "'twenty-four hour surveillance of'" citizens "'without judicial knowledge or supervision.'" *Id.* at 283-84. How and why the applicable principles might differ were left unexplained.

[213] Moreover, it is consistent with *Katz* wherein the majority warned that "[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection." *Katz*, 389 U.S. at 351.

[214] As will be discussed later, for those committed to honoring the Framer's objectives and preventing contraction of the liberties sought to be preserved in the Fourth Amendment, a critical question is whether a particular interpretation of the Fourth Amendment ensures that exploitations of technology do not diminish the privacy interests that are the concern of that provision.

It is undeniable that each discrete segment of a public journey is visible to the ordinary senses of the public. Perhaps every step along the way is ordinarily seen by at least one individual.[216] Typically, however, no member of the public perceives a complete picture of the individual's movements. At most, a collection of unrelated individuals learns isolated bits and pieces. No one individual or entity is privy to the greater information contained in an awareness of the entire sequence of movements from start to finish. Perhaps it is possible for one individual (or a collection of collaborating individuals) to follow the traveler and learn everything, from start to finish, but in reality that rarely, if ever, occurs. That reality raises a significant question. Is the mere *possibility* of ordinary sense perception a sufficient reason to conclude that a person has forfeited his or her interest in confidentiality by engaging in revelatory behavior? Is it not arguable that if members of the public *do not* generally perceive what the tracking device perceives then the technological tool is in fact being used to acquire information that is effectively concealed? If these are common understandings shared by members of society, is it really logical or fair to assert that the traveler has chosen to engage in actions that have publicized the very same information that the beeper captures? There may be force to the Court's view that a person surrenders any protected interest in secrecy by choosing to put information in a place where it *could* be sensed by the public. On the other hand, there is a case to be made for the competing position–that forfeitures of confidentiality attributed to revelatory behavior should be based upon what the public *does* rather than what the public *can do.*[217]

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[215] An awareness of the whole journey may, for example, contain greater informational content insofar as it discloses the sequence of a person's visits to different establishments or individuals and the length of time spent in each particular place visited.

[216] I am willing to concede this point for the purpose of this discussion even though it may well not be the case that every component of a journey is generally viewed by someone.

A second issue not addressed by the Supreme Court in *Knotts* poses an even greater challenge to the legitimacy of the Court's "no search" conclusion. The logical premise on which the Court's conclusion rests is that the technology was not exploited to acquire anything but details that unenhanced senses *could have* perceived. The validity of that premise is not entirely clear. The fallibility of human tracking, as illustrated by the facts of *Knotts*, engenders a potentially substantial risk that ordinary human capabilities would *not* be able to gain access to the information revealed by a comprehensive electronic record of a person's travels. Errors on the tracker's part or precautions and evasion by the person being tracked might well defeat effective surveillance and preserve the confidentiality of physically exposed facts. On the other hand, beepers are effectively invisible and unlikely to fail. It is difficult, if not impossible, to take precautions against surreptitious electronic monitoring. As a result, a technological tool such as a beeper might well be capable of accessing and gathering facts that ordinary human abilities could not perceive and acquire.[218] Put simply, assuming once again that there is additional content in a comprehensive picture of one's public movements, an electronic monitoring device might dramatically improve the chances of learning that content. If a technological device is used to uncover information about an individual's life that very likely could not have been uncovered without the device, then the threat to informational privacy is real. The exploitation of the device effectively discloses information that might well have remained unknown and confidential.[219] Whether differences in human and technological capabilities are sufficient to justify the conclusion that the technological means endanger constitutional values is a question worthy of serious attention.

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[217] The Supreme Court's decision in *Bond v. United States*, 529 U.S. 334 (2000), would seem to furnish powerful support for this competing view. Therein, the Court held that tactile manipulation of soft-sided luggage in excess of what the public generally constitutes a search even though the public could lawfully manipulate the luggage to a greater extent. *Bond*, 529 U.S. at 339. This conclusion strongly suggests that whether one can fairly be charged with revelatory behavior—that is, with knowingly exposing facts about her life to the public—ought to be measured by what one generally expects the public to sense, not by what it is possible for the public to lawfully sense.

It is noteworthy that if technological tracking of public movements were to be deemed violative of privacy because it yields more information than the public ordinarily acquires by unaided senses, then unassisted human tracking that reveals the same information would also violate privacy and constitute a search. If technology is regulated because it acquires more than the public usually acquires with its senses, then nontechnological means of acquiring the same information should also be regulated.

While at first glance unaided human tracking might seem inoffensive, upon further consideration there is nothing inherently implausible about the conclusion that the government threatens legitimate interests in secrecy and engages in a search when it puts human bloodhounds on our trails to determine where we go, who we visit, and how long we stay at various locations. The Court's suggestion in *Knotts* that abusive 24-hour surveillance by beeper could constitute a search evinces a sense that we are entitled to protection against extensive monitoring that enables the authorities to learn details that could be perceived by ordinary senses. *See supra* note 212. If that is the case, the question is whether less extensive efforts to document our lives ought to be regulated when they capture information that normally remains unseen and unlearned.

The Court's conclusion in *Knotts* is not necessarily wrong. I am not certain what the Framers would have thought of a claim of privacy in public movements, though I certainly can imagine them being concerned with the threats posed by unfettered tailing. The point of this discussion is that there are unexamined questions that cast doubt upon the Court's simplistic conclusion that technological tracking devices merely exploit an individual's decision to expose his life to public view. The revelatory behavior logic on which the *Knotts* Court rested its conclusion that beeper use is not a search is flawed and incomplete, neglecting to address the potentially greater content in complete knowledge of a person's public movements, the likelihood that the public does not generally perceive that greater content, and the degree of probability that ordinary human beings using unaided senses could not actually perceive that content.[220] Genuinely revelatory behavior should forfeit privacy, but before high-tech tracking of our travels is deemed outside the purview of constitutional concern, persuasive responses to these concerns are essential.

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[218] The *Knotts* Court noted at one point that the mere fact that the government uses a technological device that enables greater investigative "efficiency" is not a reason to deem that device subject to Fourth Amendment control. *Knotts*, 460 U.S. at 284 ("We have never equated police efficiency with unconstitutionality, and we decline to do so now."). While that conclusion seems correct, it does not respond to the concerns raised here. The issue here is not greater *efficiency* than ordinary senses, but, rather, *a greater capacity to acquire information* than is otherwise humanly possible.

[219] In this situation, the additional information could not even have been gathered by means of a physical intrusion. As will be seen in the discussion of the standard I propose for evaluating whether a technological exploitation crosses the Fourth Amendment threshold, in my view devices that provide access to information that is otherwise wholly inaccessible to unaided human senses should be subject to constitutional control. *See infra* notes 437-38 and accompanying text.

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[220] For provocative discussions of the issues raised by the decision in *Knotts*, see Lewis R. Katz, *In Search of a Fourth Amendment for the Twenty-First Century*, 65 IND. L.J. 549, 581, 584 n.124 (1990) (contending that "[t]here are marked differences between a police officer using his natural senses to observe a target suspect's movements and that officer using super-sensitive electronic devices to keep track of the target. . . . [T]he invasion by a beeper is ongoing and the electronic device's tracking is inescapable . . . ."); Brian J. Serr, *Great Expectations of Privacy: A New Model for Fourth Amendment Protection*, 73 MINN. L. REV. 583, 603 (1989) (maintaining that *Knotts* allows the government to undertake intrusive surveillance that is equivalent to "everyone in town pool[ing] their collective knowledge of a particular individual's travels and buil[ding] a daily record of every place the individual went, everyone visited, and the length of each stop" and suggesting that "if people expected such nosey behavior from others, evasive driving maneuvers might become the norms"); Arnold H. Loewy, *Protecting Citizens From Cops and Crooks: An Assessment of the Supreme Court's Interpretation of the Fourth Amendment During the 1982 Term*, 62 N.C. L. REV. 329, 353 (1984) (arguing that the assumption that what is learned from beeper use could also be learned by unaided surveillance is questionable because "the unseen beeper renders it impossible to know one is being followed" whereas visible surveillance, while "intrusive, . . . would at least leave the innocent citizen with the option to preserve his privacy" by choosing not to visit a particular place); Wayne R. LaFave, *Supreme Court Review: Fourth Amendment Vagaries (of Improbable Cause, Imperceptible Plain View, Notorious Privacy, and Balancing Askew)*, 74 J. CRIM. L. & CRIMINOLOGY 1171, 1175-76 (1983) (calling the "assumed equivalence between mere 'visual surveillance' and 'scientific enhancement' in *Knotts* . . . troublesome," and declaring that "the two investigative techniques simply are not the same" because tracking devices go "'far beyond any ordinary powers of observation,'" "permit[] a much more extended and thorough surveillance of an individual than would otherwise be possible," and may enable law enforcement in the future "to carry out a volume of surveillance activity far beyond that which would otherwise be feasible with available manpower and resources").

b. The Second Variation: The Technological Preservation or Communication of Information Voluntarily Conveyed to Third Parties

The second variation on the revelatory behavior theme is the premise that the use of technology merely to preserve or communicate information that an individual has voluntarily decided to convey to a third party poses no threat to the privacy interests protected by the Fourth Amendment. The reasoning of *United States v. White*[221] illustrates the operation of this premise.

White was decided just four years after the Court had held in *Katz* that electronic eavesdropping without physical intrusion was a search.[222] The *White* plurality concluded that there was a crucial distinction between the conduct in the two cases.[223] Unlike *White*, "*Katz* involved no revelation to the Government by a party to conversations with the defendant nor did the Court indicate in any way that a defendant has a justifiable and constitutionally protected expectation that a person with whom he is conversing will not then or later reveal the conversation to the police."[224] In the Court's view, one who puts confidences at risk by voluntarily disclosing them to another does not have a justifiable expectation that those confidences will remain private from anyone to whom the intended recipient chooses to divulge them. Consequently, when the intended recipient shares them with others—including the government—no search occurs.

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[221] 401 U.S. 745 (1971).

[222] *Katz*, 389 U.S. at 353.

[223] *White*, 401 U.S. at 749.

[224] *Id.* According to Justice White, while the "no trespass" rationale of the *On Lee* decision could not "survive" *Katz*'s abolition of the *Olmstead* doctrine, the second, independent rationale for the result in *On Lee*—that the Fourth Amendment does not govern "eavesdropping on a conversation, with the connivance of one of the parties"—remained valid in the post-*Katz*, interest-oriented threshold era. *Id.* at 750. In dissent, Justice Harlan rejected the notion that the second *On Lee* rationale constituted an "independent ground" for the Court's holding. *Id.* at 774 (Harlan, J., dissenting).

Every Justice apparently agreed that the government does not violate privacy when it merely uses "false friends" to acquire and share voluntary disclosures.[225] The individual's revelatory behavior—in this instance, not general public exposure but specific disclosure to another person—sacrifices any interest that the information will remain confidential from the intended recipient. Because those who willingly share their thoughts know (or should know) that the intended recipients are free to share disclosed information with others, the same revelatory behavior also undermines the legitimacy of an interest that the information will remain secret from anyone to whom the recipient chooses to reveal it. Both the initial loss and any subsequent loss of privacy are the result of the speaker's decision to disclose secrets, placing them beyond his control and taking the chance that they will be revealed further.[226] Neither the initial receipt of the information nor its later transmission to the government constitutes a "deprivation" or "violation" of privacy.

The Justices divided, however, over whether the use of technology—electronic recording and transmitting devices—dictated a different conclusion. Dissenters suggested that technologically-armed false friends ought to trigger Fourth Amendment scrutiny.[227] The *White* plurality[228] rejected the claim that the involvement of technology in the process should affect the analysis and alter the outcome. The Justices could perceive no constitutionally significant difference between the unaided informant who hears, remembers, and relates the information by mouth and the informant who records or transmits that information by electronic device.[229] If a speaker has no claim when a participant in a conversation listens to and orally recounts his conversations, he has no claim when the same participant records and hands over his captured conversations or when the participant transmits those conversations instantaneously to distant law enforcement agents. In all three instances, the government merely takes advantage of the individual's decision to put his or her privacy at risk; it does not intrude into a realm of preserved confidentiality.

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[225] *Id.* at 751 ("[T]he conduct and revelations of an agent operating without electronic equipment do not invade . . . constitutionally justifiable expectations of privacy . . . ."). None of the concurring or dissenting Justices questioned the premise that unaided false friends pose no Fourth Amendment issues. *See id.* at 755 (Brennan, J., concurring in the result) (maintaining only that electronic monitoring and recording are subject to the Fourth Amendment); *id.* at 760 (Douglas, J., dissenting) (contending only that electronic surveillance must be controlled by Fourth Amendment constraints to avoid the development of a police state); *id.* at 784-90 (Harlan, J., dissenting) (maintaining that electronic monitoring, unlike the use of unequipped false friends, must be regulated by the Fourth Amendment because it has a much more dramatic impact on privacy and security).

[226] According to the Court, the speaker assumes "the risk" that his conversations will be shared with others, including the government. *See id.* at 752; *see also* United States v. Miller, 425 U.S. 435, 443 (1976) (applying similar reasoning to a situation in which bank officials shared the information contained in customer records with the authorities); California v. Greenwood, 486 U.S. 35, 40-41 (1988) (applying similar reasoning to a situation in which a trash collector conveyed the contents of discarded refuse to law enforcement officers).

[227] *White*, 401 U.S. at 790 (Harlan, J., dissenting) ("The Fourth Amendment

The conclusion that the use of technology did not make a difference did not rest on the premise that speakers assume the risk of electronic recordation or transmission or on the premise that recording and transmitting devices do not enhance human capabilities. By affording means for accurate and complete preservation and instantaneous conveyance of information, these tools dramatically enhance human memory and communication capacities. As I read *White*, the addition of technology to the false friend equation made no difference because the technologies employed did not enable the authorities to breach the confidentiality of any information in which the speaker had retained a privacy interest. The technological enhancements were surely used to exploit the speaker's revelatory behavior more effectively, but they were not used in a

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does, of course, leave room for the employment of modern technology in criminal law enforcement, but in the stream of current developments in Fourth Amendment law I think it must be held that third-party electronic monitoring, subject only to the self-restraint of law enforcement officials, has no place in our society.").

[228] Only three additional Justices joined Justice White's opinion in *White*. Justice Black cast his vote with the plurality solely on the basis of his disagreement with the Court's holding in *Katz*. *Id*. at 754 (Black, J., concurring in the judgment).

[229] *Id*. at 752-53 (asserting that "there is no persuasive evidence that" there is a "substantial enough" difference "between the electronically equipped and the unequipped agent" to merit "discrete constitutional recognition").

way that increased or sharpened the government's ability to perceive or acquire concealed facts.[230] The government did not exploit technology to learn any private details that it could not have learned by relying on the hearing and reporting skills of an unaided informant. For these reasons, the government's exploitation of technology did not threaten the privacy interests sheltered by the Fourth Amendment and did not amount to a search.

The *White* Court's holding that technological means of surveillance did not implicate the Fourth Amendment rests squarely on two premises. The first is that the use of ordinary human faculties by a faithless third-party participant in a conversation to hear, remember, and report voluntarily divulged information does not deprive a trusting speaker of a protected Fourth Amendment interest in secrecy, but merely capitalizes on behavior that relinquishes privacy. The second essential premise is that when tools of technology are used to preserve and transmit divulged information more accurately and more quickly, they enhance memory and communication but occasion no greater breach of informational privacy. Together, these premises support the conclusion that when informants use electronic equipment to capture or transmit what they have been told, all losses of confidentiality are attributable to the foolish speaker's revelatory conduct.

I have always had doubts about the validity of the first premise—that the government's use of unaided false friends are of no concern to the Fourth Amendment. I wonder whether official efforts to recruit and place untrustworthy auditors in our presence either to encourage us to disclose or merely to receive information we are willing to share is as harmless to constitutional values as the Justices believe.[231] Obviously, if this premise is flawed—if unequipped informants who hear, elicit, and recount disclosures violate privacy and trigger

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[230] *Id.* at 753 (emphasis added) (asserting that the effect of the percipient third party's use of an electronic device was merely to "produce a *more reliable* rendition of what a defendant has said" and "a *more accurate* version of the events").

[231] For an extended discussion of some of the reasons for my sense that the government's use of unaided false friends may pose cognizable threats to constitutional values, see Tomkovicz, *supra* note 19, at 728-29.

Fourth Amendment control—then the use of electronic aids for the same purpose would also violate privacy. For purposes of this discussion, however, I accept the validity of the first premise. Because my concern is with the relationship between technology and the Fourth Amendment's reach, I focus attention on the Court's second premise–that the threats to privacy from technologically-armed false friends are no different from or greater than the threats to privacy from their unarmed counterparts.

If faithless auditors equipped with electronic recorders or transmitters inflict no greater damage upon informational privacy interests, there is probably no reason to subject them to Fourth Amendment control. If the same facts can be perceived and acquired by the government whether ordinary human abilities or the more efficient mechanisms afforded by progress are used, then the Court is correct to conclude that this particular technological exploitation poses no cognizable threat to confidentiality.[232] A technological device that does not augment ordinary abilities to perceive or acquire information, but merely modifies the perception or acquisition processes in ways that have no impact on secrecy should not be an object of Fourth Amendment concern.

Once again, while the Court's basic logic is sound, its analysis of the implications of electronic participant monitoring is distressingly incomplete. There are reasons to question whether the impacts of technology are as limited and innocuous as the Court believes. Electronic recorders and transmitters may well enable the authorities to acquire *more* information than ordinary, unenhanced human faculties.[233] A human being's abilities to hear, remember, and recount are far from perfect. While there is a chance that a false friend *might* be able to perceive, recall, and report every word spoken by another, there is a sizeable, virtually inevitable, risk that human deficiencies will preclude full reception, retention, and communication of the critical information whose privacy has been put at risk by the speaker's willingness to disclose it to another. Although electronic listening, recording, and transmitting tools could malfunction, the chance of that occurring is much smaller. By preserving a tangible record of conversations or instantaneously communicating a speaker's words to the authorities' ears, these devices increase the opportunities for the government to acquire information divulged. Devices that appear to merely accurately preserve and accelerate the transmission of conversations may also dramatically enhance the government's powers of perception and acquisition by eliminating human failings and deficiencies. The enhancements of memory and the acceleration of communication—indeed, the capacity to hear the exact words of the speaker as they are spoken, not a later rendition by a third-party—enable the government to perceive and to acquire information that would, in all likelihood, otherwise have remained private.[234] This reasoning suggests that false friends equipped with technological tools threaten the privacy at the core of the Fourth Amendment.[235]

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[232] Of course, if the use of technology in these situations endangers other Fourth Amendment values, a different conclusion would be justified. Based on my beliefs about the objectives of that provision, however, I see no other threat that would justify Fourth Amendment scrutiny. I do not deny that other Fourth Amendment interests exist and were the aim of the Framers. It seems likely that they were concerned, for example, with safeguarding an interest in quiet repose in our homes and an interest in bodily dignity and integrity. Situations in which technological means of surveillance are used generally pose no peril to these interests.

[233] Defensible constitutional solutions to exploitations of technology demand close scrutiny of the perceptive and acquisitive capacities of unaided human facul-

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ties and the perceptive and acquisitive capacities of the particular device at issue. If there is no difference between the two or if the difference is negligible, then the use of a technological device should be treated like the use of ordinary senses. However, if a modern development measurably improves human abilities to sense and learn information not accessible otherwise—or not accessible without engaging in behavior that would trigger Fourth Amendment regulation—then there is a substantial basis for concluding that its use does cross the Fourth Amendment threshold.

[234] One difficult question for those who subscribe to this logic is whether *all* information gathered and passed along through electronic mechanisms is the product of a violation of privacy. The government could have learned some of the details by using an unequipped agent. The technology has merely ensured receipt of a complete account. The problem is that it is impossible to determine what could have been gained without the device.

[235] Another basis for concluding that the Fourth Amendment might be concerned with electronically-assisted false friends is the arguably more severe dam-

It is possible that the additional dangers to informational privacy posed by the use of technological tools are insufficient to trigger constitutional scrutiny. Perhaps the chance that the government will learn substantially more information is negligible, small enough to ignore. It does not seem sensible, however, to conclude that there is positively no possible difference in the substance of what the authorities can gather by reliance on ordinary human abilities and what they can gather by reliance on electronic recording or transmitting devices. The differences, which could be quite substantial, ought to be analyzed and evaluated in deciding whether the use of electronic listening and recording devices by third persons triggers Fourth Amendment scrutiny.

In sum, the *White* Court's assessment of an electronically-equipped agent as more efficient than the unaided agent, but as no greater threat to privacy, fails to account for the very real possibility that electronic devices increase the government's access to information it would otherwise be unable to learn, and casts doubt on the Court's threshold holding. There may be a plausible reason why the technological enhancement of the ability to learn the details of a person's life should not be governed by the Fourth Amendment. The flawed assertion that a mere false friend and a technologically-assisted false friend have the same abilities to secure, preserve, and communicate information, however, is not such a reason. In the absence of a more convincing rationale, the potential for increased harm to valued interests in secrecy furnishes a logical basis for holding that a third party's recordation or transmission of conversations is a search within the meaning of the Fourth Amendment.[236]

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age done to other freedoms that are furthered by our ability to preserve the confidentiality of information about our lives. *See* Tomkovicz, *supra* note 19, at 729 n.339.

[236] This conclusion is neither novel nor unprecedented. Dissenters in *White* would have held that technologically-equipped false friends pose cognizably greater threats to the "security" that is promised by the Fourth Amendment and must satisfy that provision's requirements. *See White*, 401 U.S. at 787 (Harlan, J., dissenting). Some state courts have concluded that the government's surreptitious employment of an electronic device to capture conversations violates the state's

c. *The Third Variation: The Voluntary Disclosure of Information to Technological Devices*

The third variation on the revelatory behavior theme holds that the choice to disclose information to technological devices that provide access to otherwise imperceptible matters forfeits the Fourth Amendment privacy interest in those matters. *Smith v. Maryland*,[237] the landmark case in which the Court endorsed Justice Harlan's two-pronged test for reasonable expectations of privacy, exemplifies this logic.[238]

As noted earlier, the *Smith* Court held that the use of a pen register to record numbers dialed from a residential telephone was not a search.[239] The majority first expressed doubt that telephone users have *actual* expectations of privacy in the numbers they dial because they realize that they have to convey these numbers to the telephone company, that the telephone company has facilities for making records of the numbers, and that the telephone company sometimes makes such records for business purposes.[240] The majority then concluded that even if the petitioner had a "subjective expectation that the phone numbers he dialed would remain private, this expectation [was] not 'one that society is prepared to recognize

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constitutional guarantee of privacy. *See, e.g.*, State v. Geraw, 795 A.2d 1219, 1220 (Vt. 2002) (concluding that the Vermont Constitution prohibits secret recordings of police interviews in the home "without the protection of a judicially authorized warrant"); Commonwealth v. Brion, 652 A.2d 287, 287 (Pa. 1994) (concluding that the Pennsylvania Constitution "precludes the police from sending a confidential informer into the home of an individual to electronically record his conversations and transmit them back to the police"); Commonwealth v. Blood, 507 N.E.2d 1029, 1034 (Mass. 1987) (stating that "in circumstances not disclosing any speaker's intent to cast words beyond a narrow compass of known listeners . . . it is objectively reasonable to expect that conversational interchange in a private home will not be invaded surreptitiously by warrantless electronic transmission or recording" and that the consent of one of the parties does not "alter[] the balance as to obviate the need for a warrant requirement"); State v. Glass, 583 P.2d 872, 879 (Alaska 1978) (holding that "Alaska's privacy amendment prohibits the secret electronic monitoring of conversations upon the mere consent of a participant").

[237] 442 U.S. 735 (1979).

[238] *See Smith*, 442 U.S. at 740.

[239] *Id.* at 745-46.

[240] *Id.* at 742-43.

as "reasonable."'"[241] The reason was that a person "has no legitimate expectation of privacy in information he voluntarily turns over to third parties."[242] In *Smith*, the petitioner had "voluntarily conveyed" the numbers he was dialing "to the telephone company" and "assumed the risk that the company would reveal to police the numbers he dialed."[243]

The Court's threshold reasoning in *Smith* bears a clear resemblance to its reasoning in *White*. Both rely heavily upon the sacrifice of privacy resulting from voluntary disclosures to third persons cooperating with the authorities. However, there is a critical difference in the use of technology in the two cases—a difference that yields quite distinct lessons. In *Smith*, the government did not use a device to accomplish the same perceptive and acquisitive purposes that it could have achieved by using ordinary human senses.[244] The pen register was essential to the perception and acquisition of the numbers dialed from the home telephone. The technology was used in a manner that did enhance human perceptive capacities, enabling the authorities to intercept information that could not have been seen, heard, or otherwise acquired by human senses. Without the pen register, the information would have remained confidential and unknown.

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[241] *Id.* at 743 (quoting *Katz*, 389 U.S. at 361).

[242] *Id.* at 743-44.

[243] *Id.* at 744. At an early, prefatory point in its analysis, the *Smith* Court also noted that the technology employed by the government "differ[ed] significantly from the listening device employed in *Katz*," because it did "not acquire the *contents* of communications," but, rather, only captured the numbers dialed. *Id.* at 741. It would be a mistake to conclude that this observation means that technology is not to be subject to Fourth Amendment oversight unless the information that is or can be acquired meets certain "content" standards. In the *Smith* opinion, the "content" factor does not appear to be an independently sufficient reason to deny Fourth Amendment protection. At best, it seems superfluous—a makeweight offered to bolster a conclusion rooted in other reasons. Moreover, subsequent decisions have indicated that as a general matter the Court looks unfavorably upon threshold distinctions based on the kind, quality, or amount of information acquired—particularly with regard to in-home activities. *See infra* notes 282-300 and accompanying text. If the "content" factor in *Smith* has any impact, it would seem to be a potential limitation on the scope of the Court's holding. The lesser content in numbers could provide a basis for distinction in a future case in which conversations are intercepted by the telephone company.

[244] Although I have concluded that this premise is questionable in *White*, it was the basis relied on by the Court to support the conclusion that the informant's use of a recording or transmitting device was not a search.

Despite this difference from *White* (and from *Knotts*), the Court reached the same conclusion—the official exploitation of technology did not violate a reasonable expectation of privacy and did not qualify as a search. The Court reasoned that the petitioner, aware that the phone company possessed and employed equipment that could sense and record the numbers that were dialed, had chosen voluntarily to convey the "numerical information to the telephone company and [had] 'exposed' that information to its equipment in the ordinary course of business."[245] Moreover, in the current state of telephone technology, the "switching equipment that processe[s] . . . numbers is merely the modern counterpart" of a human operator.[246] A caller could not have made a plausible privacy claim in information revealed to the operator, and "a different constitutional result [was not] required because the telephone company has decided to automate."[247]

In essence, a claim that the use of a pen register intrudes upon privacy lacks merit because a person who uses a residential telephone freely elects to share the numbers dialed with phone company mechanisms, aware that those mechanisms can perceive and retain the numbers. It does not matter whether one chooses to share otherwise confidential matters with another person's naked senses, *i.e.*, the operator's ears, or with sophisticated mechanical sensors, *i.e.* a pen register. In either case, he takes the chance of perception, retention, and of divulgence to others. In an earlier day, by telling the operator the number he wished to reach, he contradicted the validity of a contention that the operator violated his privacy by learning the numbers. Today, by engaging in the revelatory behavior of dialing the telephone, he contradicts an assertion that the use of technology to learn the numbers deprives him of a legitimate interest in secrecy. It is unreasonable to expect or to claim privacy when one opts to surrender it to man or machine.[248]

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[245] *Smith*, 442 U.S. at 744.

[246] *Id.*

[247] *Id.* at 745.

The clear lesson is that when a technological device does augment human perceptive abilities, if the authorities employ it only to gain access to facts that an individual willingly conveys to the device, they merely take advantage of the individual's lack of regard for secrecy and cannot be charged with breaching an interest in confidentiality. Even if a device has the capacity to enhance human senses in ways that threaten informational privacy, if the manner of use involves mere exploitation of revelatory conduct, then the use does not constitute a search. Technology-aided acquisition of otherwise imperceptible details does not deprive a person of a cognizable privacy interest when the individual has made an informed, willing choice to disclose those details to the technology. Revelatory conduct surrenders confidentiality and defeats the claim that the government has infringed upon a constitutionally protected privacy interest. One cannot logically expect or demand secrecy from a sense-enhancing mechanism when one chooses to convey information to that mechanism, cognizant that it can be and is used to capture such information.[249]

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[248] My explanation of *Smith's* logic reflects the view that the Court's reliance on the fact that a pen register is a modern, mechanical surrogate for the animate operators of an earlier era is *not* an independent and adequate basis for the Court's holding. As I read *Smith*, the Court's primary reliance was on the dialer's choice to disclose the numbers to the equipment with powers of perception and acquisition beyond those possessed by humans. *Smith*, 442 U.S. at 744-45. The discussion of the relationship between operators and pen registers and of the analogous role played by each was intended to bolster the conclusion that such revelatory behavior forfeits confidentiality even if a device with unique perceptive powers is needed to acquire the information. If I am correct, then the modern counterpart reasoning is either superfluous (*i.e.*, the same conclusion would have been reached without it) or limiting (*i.e.*, a search would not have been found, despite the choice to disclose information to the pen register, if there had been no human predecessor that served the same function). My sense is that the first alternative is the most likely.

It is possible that the operator surrogate reasoning provides an independent and adequate basis for the conclusion in *Smith*. Under that interpretation, if a modern technological device is a substitute for a human operative against whom there would be no legitimate privacy claim, the use of the device does not trigger Fourth Amendment coverage even if the individual has not voluntarily and knowingly chosen to reveal the information to the device. This seems to me to be an implausible reading of *Smith*. Moreover, the constitutional reasoning it reflects seems indefensible.

The *Smith* Court's conclusion stands on two legs. The first leg is that no cognizable privacy breach occurs when the government recruits third-party recipients to acquire and report disclosures.[250] The second leg is that if the third-party uses technology that enhances human abilities to capture those disclosures, no cognizable intrusion on privacy occurs if the individual has knowingly chosen to communicate with the sense-enhancing device. As noted earlier, I have unsettled doubts about the conclusion that we cannot legitimately expect the government not to enlist confidantes to receive and report details we are willing to entrust to them. Those doubts grow even stronger in situations where the third-party is a commercial entity or public utility.[251] Nonetheless, because my concern is with technology, I again assume the validity of the voluntary disclosure to third parties logic.[252]

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[249] For critical scholarly assessments of the Court's reasoning and holding in *Smith*, see WAYNE LAFAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT §2.7(b) (3d ed. 1996) (calling *Smith* "a crabbed interpretation of the *Katz* test [which] makes a mockery of the Fourth Amendment."); Joseph D. Grano, *Crime, Drugs, and the Fourth Amendment: A Reply to Professor Rudovsky*, 1994 U. CHI. LEGAL F. 297, 308 (deeming the result in *Smith* "antithetical to the defining norms of a free society" and in "conflict with the Fourth Amendment's underlying purposes"); Brian J. Serr, *Great Expectations of Privacy: A New Model for Fourth Amendment Protection*, 73 MINN. L. REV. 583, 600 (1989) (maintaining that *Smith* "rests on a fallacy" and that the "governmental snooping" it permits "smacks of Orwell's Big Brother, protection from which is the essence of the fourth amendment"); Arnold H. Loewy, *The Fourth Amendment as a Device for Protecting the Innocent*, 81 MICH. L. REV. 1229, 1254-55 (1983) (alleging that *Smith* betrays a "lack of concern for the innocent" and suggesting that because *Smith* leaves "government officials . . . perfectly free to learn every telephone number that any person dials, subject only to the cooperation of the telephone company," the decision has "an intolerable impact . . . on the innocent").

For illustrations of the judicial disagreement with the Court's handling of the issue addressed in *Smith*, see People v. Chapman, 679 P.2d 62, 67 n.6 (Cal. 1984) (observing that the federal courts' acceptance of "the fiction that there is no expectation of privacy in . . . outgoing telephone call records . . . because the user voluntarily conveys this information to a third party" stands in contrast to California's view); Commonwealth v. Beauford, 475 A.2d 783, 789 (Pa. Super. Ct. 1984) (opining that an individual who uses a home or office telephone "fully expects that the number he is about to dial will remain as private as the contents of the communication he is about to have" and that the "caller certainly evidences no intention to shed his veil of privacy merely because he chooses to use the telephone to make private contacts," and concluding that "a caller and the person he calls expect and are entitled to as much privacy in the fact that they are talking to one another as in what they say to each other"); People v. Sporleder, 666 P.2d 135, 141 (Colo. 1983) (opining that a "telephone subscriber . . . has an actual expectation that the dialing of telephone numbers from a home telephone will be free from governmental intrusion" and that this expectation "is a reasonable one").

[250] For a discussion of this threshold reasoning, see *supra* notes 221-26 and accompanying text.

The question is whether it should make a difference that the government-enlisted recipient of voluntary disclosures has employed a mechanism that perceives and retains information inaccessible to ordinary human faculties. In general, I agree with the second logical leg on which *Smith* stands. If a person has genuinely and freely chosen to communicate facts to a mechanism, knowing it can and does sense and record those facts, the person has no better claim that a breach of confidentiality has occurred than when he or she speaks to functioning ears or acts in front of percipient eyes. Knowing, voluntarily revelations to specialized machines should forfeit any interest in the secrecy of the information revealed.

The Court's application of this logic to the facts of *Smith*, however, reflects an insufficiently thorough analysis of the relevant variables. The Court failed to seriously address the implications of the possibility that telephone users do not expect the phone company to sense and retain local numbers, dismissing this concern with an assertion that dialers know the capacity to record exists and that recordation of local numbers sometimes occurs. If a realistic telephone user, in fact, would believe it to be quite unlikely (even extremely unlikely) that the phone company would capture the information conveyed, then it is arguably both illogical and unfair to charge phone users with revelatory conduct that sacrifices an interest in confidentiality. If those who dial local numbers have good reason to believe that those numbers will never be accessed by percipient human beings, but will merely be processed by insensate mechanisms, their decision to dial the telephone may not betray a lack of concern with or interest in preserving confidentiality. To the contrary, it may be both rational and legitimate for an individual to believe that she has acted in a way that will maintain secrecy from the third party phone company.

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[251] As Justice Marshall has said, in these situations the "choice" to convey the information is hardly as free as in situations involving optional conversations with other private persons. If one wants to function effectively in modern society, there is a need to share information with an increasing number of institutional entities. *See Smith*, 442 U.S. at 749-50 (Marshall, J., dissenting) (contending that assumption of risk entails "some notion of choice," and that "[i]t is idle to speak of 'assuming' risks in contexts where . . . individuals have no realistic alternative" because they must disclose information in order to take advantage of "a personal or professional necessity" like a telephone); *see also* Commonwealth v. Beauford, 475 A.2d 783, 789 (Pa. Super. Ct. 1984) ("In modern-day America the telephone call is a nearly indispensable tool used to conduct the widest range of business, government, political, social, and personal affairs."). Moreover, the choices among recipients of the information that must be furnished are restricted because there are finite numbers of banks, phone companies, and energy providers. In my view, these distinctions from the typical false friend case strengthen the argument that the people might be entitled to expect their government not to insinuate itself into relationships with such third parties–at least not without reason.

[252] Of course, if the first leg were invalid it would not be necessary to address the second leg. The third party's conduct would constitute a search whether or not a technological sense-enhancing device were used.

The Court's view is that by deliberately taking *any chance* that the telephone company *could* sense and retain the information for human review, the dialer forfeits a claim of secrecy. The magnitude of the risk known or taken is apparently irrelevant. While this position may be defensible, when the sole basis for denying constitutional shelter is that an individual has behaved in a way that surrenders confidentiality, the magnitude of the chance that revelation will actually occur seems highly relevant. The proposition is at least worthy of discussion. The reasoning that I find logical is that people who knowingly disclose information about their lives to others or others' technology cannot sensibly claim that it will remain secret from the recipients. When they have good reason to believe that there is little or no realistic chance of actual perception, it is rational to anticipate and to assert an interest in confidentiality. If *any risk* of perception and acquisition is to be treated like certainty, *i.e.*, as a basis for finding that privacy has been relinquished, a better explanation of why and how that result comports with the Fourth Amendment seems essential.[253]

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[253] An explanation may be implicit in the Court's declaration that the tech-

My refrain is growing as familiar as the Court's analytical tendencies. The third variation on the revelatory behavior theme is basically logical. The choice to disclose information to a modern marvel with perceptive and acquisitive capacities that outstrip those of mere mortals is a reason for finding no deprivation of confidentiality. A genuine choice to disclose information to others' ordinary senses renders ludicrous the claim that we expected and are entitled to privacy from those others. The fact that we have made such disclosures to an inanimate mechanism that captures, preserves, and renders them accessible to ordinary senses should make no analytical difference. Nonetheless, before concluding that this principle governs any particular situation, it is essential to carefully evaluate whether it is fair to conclude that the individual has chosen to share facts with a technological device. An accurate picture of what the mechanism can do, of how it is actually used, and of common understandings, expectations, and risks is required.

2. The "Informational Content" Factors

A number of the Court's threshold technology decisions have relied upon factors that fall within an "informational content" category. These factors have been influential, sometimes dispositive, in resolving claims that technological exploi-

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nology at issue in *Smith*, the pen register, was a modern substitute for the hearing, remembering human operator of an earlier age and that the phone company's decision to automate ought not give rise to a privacy interest that would not have existed prior to automation. The likelihood of reception and retention by a human operator was great. Consequently, the decision to tell an operator the number one wanted to reach would have contradicted a claim that the number would remain secret from the operator. Perhaps the Court's view is that because modern switching equipment is essentially a "mechanical operator," the same conclusion must follow. That view is unpersuasive.

Whether a person should be charged with forfeiting interests in confidentiality ought to be judged by the realities of the world in which he has acted, not some no longer extant world. We live in a modern, automated world, a world of altered risks and expectations. If there is no reason to believe that modern equipment senses and retains the numbers like human operators, then the decision to dial telephones has different significance. Dialing is not genuinely revelatory behavior that is inconsistent with a desire for and anticipation of privacy.

tations have crossed the threshold of the Fourth Amendment. Once again, the Court has played three variations on the theme–the "no information at all" variation, the "only insignificant or illegitimate information" variation, and the "any detail about the home" variation. The first two have resulted in denials of constitutional coverage, while the latter has yielded Fourth Amendment regulation of surveillance made possible by technological tools.

The essential logic that underlies the category is that whether a constitutionally cognizable interest in confidentiality or secrecy is jeopardized can depend on whether the government's conduct might enable it to learn any facts entitled to Fourth Amendment protection. If informational privacy is the core interest safeguarded by constitutional control over searches–and I have previously suggested that this is a logically defensible proposition–then it seems eminently sensible to link the scope of Fourth Amendment governance to the potential for disclosures of matters with "informational content." There are two pertinent inquiries: whether any details might be revealed and whether those details are worthy of constitutional shelter.

a. The First Variation: Official Conduct that Can Reveal No Information at All

Conduct involving technological advances that has absolutely no potential to reveal any information to the authorities does not cross the Fourth Amendment's threshold and cannot qualify as a search. In *United States v. Karo*,[254] the respondents claimed that the transfer of a beeper-infected container to them was a Fourth Amendment search.[255] The Court's simple, direct response was that the "mere transfer . . . of a can containing an unmonitored beeper infringed upon no privacy interest" because "it [could] convey no information at all."[256] The act of delivering an object that has a beeper installed cannot, by itself, enable the authorities to learn any details, much less details that a recipient would wish to keep private. It cannot possibly uncover any facts about a person's life. For threshold purposes, it does not matter that *subsequent* conduct involving the beeper–*i.e.*, monitoring the electronic signal it emits–can reveal information.[257] Because no loss of confidentiality or secrecy can be occasioned by the transfer of an object laden with a beeper, that action alone does not qualify as a search within the meaning of the Fourth Amendment.[258]

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[254] 468 U.S. 705 (1984). The Court's opinion in *Karo* makes an even more significant contribution to the third variation on the informational content theme–the notion that all in-home details are constitutionally protected. *See infra* notes 282-301 and accompanying text.

[255] *Karo*, 468 U.S. at 711.

The Court's threshold conclusion in *Karo* regarding the transfer of a beeper-infected object seems logically consistent with the purposes of the Fourth Amendment. If the core concern of the Fourth Amendment is informational privacy—*i.e.*, if the primary object is to enable "the People" to keep their lives confidential if they wish to do so–then the mere fact that a technological device has the *potential* to disclose private information should not trigger the application of the Fourth Amendment. There is no need for "preemptive" regulation based on future conduct involving the device. The placement of a listening device on a telephone booth ought not cross the constitutional threshold simply because that device, when activated, could capture confidential private conversations otherwise confined within the booth. Only when a technological mechanism is actually put to use in some fashion that risks revelation of confidential details should the mechanism raise constitutional concerns.[259]

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[256] *Id.* at 712.

[257] *See id.* (observing that while the transfer of the beeper-laden container to Karo "created a *potential* for an invasion of privacy, . . . we have never held that potential, as opposed to actual, invasions of privacy constitute searches" and asserting that "[i]t is the exploitation of technological advances that implicates the Fourth Amendment, not their mere existence").

[258] *Id.* at 712-13. The respondents in *Karo* could not challenge the *installation* of the beeper because the can of chemicals was not in their possession at the time it was installed. *Id.* at 711. Nonetheless, the reasoning of *Karo* surely dictates the same threshold conclusion regarding the installation of a beeper that does not involve physical intrusion into the interior of the host object. In the absence of a physical intrusion that could expose the interior of the object, mere attachment of an electronic tracking device has no potential to reveal information. *See, e.g.*, United States v. McIver, 186 F.3d 1119, 1127 (9th Cir. 1999) (holding placement of tracking device on undercarriage of vehicle was not a search in part because "the officers did not pry into a hidden or enclosed area"); United States v. Worthington, 544 F.2d 1275, 1281 (5th Cir. 1977) ("[a]ttempted use" of beeper installed on aircraft "is without significance" because "it malfunctioned shortly after its installation and its use produced no evidence whatsoever").

The respondents also claimed that the transfer of the container harboring the beeper was a "seizure" within the meaning of the Fourth Amendment. *Karo*, 468 U.S. at 712-13. The Court concluded that although the act of transferring the container was a "technical trespass," it was not a seizure because it effected no "meaningful interference with" the possessory interests in the container. *Id.* The same conclusion–that no *meaningful* interference with possession results–would undoubtedly apply to installation of a beeper in an object already in the possession of an individual.

The physical intrusions that troubled our ancestors threatened to uncover confidential information about individuals' lives. If a particular use of technology can reveal no information at all, it does not pose analogous dangers to secrecy. Whether or not technology is involved, conduct that does not imperil the values that motivated the Framers should not be deemed a "search."[260]

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[259] In opinions involving investigations without technological assistance, the Court has stretched the "no information at all" threshold criterion, expanding its influence. The Court has found that the Fourth Amendment's threshold is not crossed in situations where it is a "virtual certainty" that government conduct will reveal no information, *see* United States v. Jacobsen, 466 U.S. 109, 118-20 (1984) (holding reopening of package not to be a search because of virtual certainty that agents would not learn anything they did not already know), and in situations where there is not "a substantial likelihood" that the actions of the authorities will disclose any facts. *See* Illinois v. Andreas, 463 U.S. 765, 773 (1983) (holding opening of package already examined by government agents not a search because of lack of "a substantial likelihood" contents had changed in interim). It seems likely that these principles would also be applied to technological means of investigation.

In cases where the probability of revealing confidential details about a person's life is truly negligible, the Court's extension of this factor's influence seems defensible. The Framers might well have been unconcerned with acts that have virtually no chance of breaching valued interests in secrecy. In any situation in which there is a more than negligible chance that a private detail could be learned, however, there would seem to be no adequate reason to deem the government conduct outside constitutional purview. The searches that were the object of the colonists' antipathy were not "certain" to deprive a person of privacy.

[260] My agreement with the Court also rests on a belief that conduct of this sort poses no peril to other potential "privacy" interests that might well be entitled to Fourth Amendment protection–*e.g.*, interests in quiet repose or in bodily

b. The Second Variation: Official Conduct that Can Reveal Only Insignificant or Illegitimate Information

The second variation on the informational content theme, a theme which has found expression in two different technological contexts, is of questionable validity. In *United States v. Place*,[261] the Court deemed a drug-sniffing canine's examination of a piece of publicly-situated luggage not to be a search because the "investigative procedure . . . [was] so limited both in the manner in which the information [was] obtained and in the content of the information revealed."[262] With regard to the manner of the intrusion, the sniff did not involve an opening of the luggage or the exposure of other contents. With regard to the content of the potential disclosure, the sniff could reveal "only the presence or absence of narcotics, a contraband item."[263] Just one year later, in *United States v. Jacobsen*,[264] the Court held that a chemical field test used to determine the identity of a suspicious powder was not a search.[265] The investigative technique at stake "could disclose only one fact previously unknown . . . whether or not [the] powder was" contraband.[266] A negative field test result (a finding that the substance was not narcotics) would reveal "nothing of special interest," while a positive outcome (a finding of contraband) would not infringe upon a "legitimate privacy interest" because "the interest in 'privately' possessing" narcotics has been deemed "illegitimate" by Congress.[267] In sum, like a dog sniff, this scientific method had the potential to reveal concealed facts with exceptionally limited informational content.

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integrity and dignity.

[261] 462 U.S. 696 (1983).

[262] *Place*, 462 U.S. at 707. This holding has recently been reaffirmed and extended to canine-sniffs of vehicles in public places. *See* City of Indianapolis v. Edmond, 531 U.S. 32, 40 (2000).

[263] *Id.* at 707.

[264] 466 U.S. 109 (1984).

[265] *Jacobsen*, 466 U.S. at 120.

[266] *Id.* at 122.

[267] *Id.* at 123.

Together, these two cases teach a simple, though controversial, lesson about the Fourth Amendment's regulation of human sense enhancements afforded by scientific progress. If the only information that a novel investigative technique can disclose is either the "insignificant" fact that contraband is not present or the "illegitimate" fact that contraband is present, the exploitation of that technique does not violate a reasonable expectation of privacy.[268] Disclosures of details so limited in content and character are not thought to pose meaningful threats to the central constitutional interest in confidentiality. *Place* and *Jacobsen* rest on an assumption that the Fourth Amendment is unconcerned with protecting the secrecy of matters that can be characterized as either insignificant or illegitimate.[269] Consequently, just like methods or mechanisms that can reveal no information at all, sense-enhancing technologies that can reveal only insignificant or illegitimate information, and nothing else, do not cross the Fourth Amendment threshold.[270]

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[268] Of course, the method must also be physically unintrusive in character. While *Katz* declared that a physical intrusion is not necessary for a Fourth Amendment search, physical intrusions into concealed spaces ordinarily engender sufficient risks of revealing significant, legitimate information to qualify as searches.

[269] Because the rationales for the Court's conclusions in *Place* and *Jacobsen* are not explained, the scope of the "insignificant" information category is unclear. It is possible that only the fact of nonpossession of *contraband* is sufficiently insignificant. On the other hand, nonpossession of *any item* may be too unimportant a fact to merit protection. Even a middleground is possible–i.e., nonpossession of some, but not all, items other than contraband could qualify as insignificant information.

[270] This reasoning has been applied by the Supreme Court only in contexts outside the home. The Court has shown enormous solicitude for in-home information, declaring that "in the home, . . . *all* details are intimate details" protected by the Fourth Amendment. Kyllo v. United States, 533 U.S. 27, 37 (2001); *see infra* notes 283-302 and accompanying text. It is uncertain whether the reasoning of *Place* and *Jacobsen* would be extended to in-home settings. When that issue comes before the Court, it could apply the *Place/Jacobsen* reasoning to residences, concluding that it overstated the case in *Kyllo* when it asserted that *all* details about home interiors merit Fourth Amendment shelter. Whether contraband is or is not present in a dwelling could be characterized as unprotected, nonintimate details about the home. *See, e.g.*, United States v. Lingenfelter, 997 F.2d 632, 638 (9th Cir. 1993) (dog sniff not a search because individual did not have a legitimate expectation of privacy in contraband stored in his warehouse; individual

In my view, the variation on the informational content theme reflected in *Place* and *Jacobsen* is constitutionally suspect. The Court has declared the determination that one is not in possession of contraband to be of no significance–*i.e.*, that no one could or should care about a breach of confidentiality concerning that unimportant detail. The Court has declared the possession of contraband to be illegitimate information–*i.e.*, while a person might well care about keeping that fact confidential, society is unwilling to provide shelter. The assumption is that there can be no constitutionally protected secrecy interest in such facts because the Framers were only concerned with protecting significant, legitimate matters.

The Court's premises are questionable interpretations of the Fourth Amendment not because they reflect implausible choices between privacy and societal protection. It would be reasonable to strike the constitutional balance by deeming certain relatively unimportant facts–such as the nonpossession of contraband substances–to be outside the reach of privacy protection and by declaring others–like the possession of con-

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would not have a protected privacy interest in fact contraband was in his home); United States v. Vasquez, 909 F.2d 235, 238 (7th Cir. 1990) (canine sniff used to detect presence of contraband in garage does not compromise a legitimate expectation of privacy). On the other hand, the Court could decide that homes are different, that the privacy interests in dwellings are so exalted that even these otherwise unworthy bits of information are safeguarded. *See, e.g.*, United States v. Thomas, 757 F.2d 1359, 1366-67 (2nd Cir. 1985) (holding use of dog to detect contraband in apartment violated "legitimate expectation that the contents . . . would remain private"); State v. Ortiz, 600 N.W.2d 805, 817, 820 (Neb. 1999) (concluding that canine sniff in apartment building hallway was a search of an apartment because "the information gained . . . as to the existence of contraband inside the apartment emanated from inside the apartment" and because "the police [were] able to obtain information regarding the contents of a place that has traditionally been accorded a heightened expectation of privacy"); United States v. Dicesare, 765 F.2d 890, 902-03 (9th Cir. 1985)(Reinhardt, J., concurring) (asserting that dog sniff of interior of apartment did constitute a search).

If the limitation on Fourth Amendment scope developed in *Place* and *Jacobsen* is legitimate, I do not believe that a line should be drawn between homes and other contexts. If the facts that one possesses or does not possess contraband are undeserving of constitutional protection outside the home, they seem undeserving of protection within the home. As will be seen, however, I have serious doubts about the validity of the "insignificant" or "illegitimate" information variation in *any* setting.

traband–to be odious and undeserving of constitutional shelter. The position has an inherent logical appeal. A society that adopted such a scheme could gain in safety and security without suffering devastating impoverishments of freedom and privacy. The question, however, is not whether that accommodation of the competing interests is plausible or reasonable. The relevant inquiry is whether that balance is the one struck in our Constitution.

The issue is complicated by the fact that those who designed our Constitution were unacquainted with dog sniffs, chemical field tests, or analogous means of investigation–*i.e.*, methods that could only reveal such limited information. It is possible that the Framers did strike the balance reflected in the Court's second variation on the informational content theme or, perhaps more to the point, that they would have struck that balance if they had known of investigative methods that could *only* breach the confidentiality of insignificant or illegitimate facts. If they had means of revealing only whether or not a person was involved in treason or seditious libel, it is conceivable that they would have permitted their unregulated use. Because I cannot exclude that possibility, I do not deem the Court's second variation to be clearly invalid.

Nonetheless, I am unpersuaded by the Court's interpretive choices. An individual may well value the privacy of and wish to keep confidential the fact that he is not in possession of contraband. Details about what a person is *not* doing provide information and insight into that person's life. It is not self-evident that the desire to keep such facts concealed and secret is undeserving of constitutional protection. The designers of the Constitution might well have decided that the people themselves are entitled to determine whether any information about their lives is significant enough to conceal. Moreover, an individual clearly has a strong, understandable interest in keeping private the fact of contraband possession. It would not have been unreasonable for the Framers to protect the freedom to maintain the confidentiality of such illegitimate details. The Fourth Amendment was adopted despite an awareness that the balance it struck between liberty and crime control–*i.e.*, the constraints imposed on official power to search–would afford breathing space for criminal conduct.[271] They might well have decided that a genuinely free society should provide privacy protection even for information about criminality.

The Court's conclusions to the contrary in *Place* and *Jacobsen* strike me as the purest form of *ipse dixit*. They derive no support from historical or other evidence suggesting that the Framers would have adhered to the view that there are classes of insignificant or illegitimate information that are unworthy. In neither *Place* nor *Jacobsen* did the Court explain the constitutional foundations for this second variation on the informational content theme. In the absence of logical support, one is left with a sense, if not a suspicion, that the Court's premises are rooted in mere speculation or in the Justices' own preferences rather than in the principles and values of the Framers.[272]

In addition, the second variation on the informational content theme requires distinctions between significant and insignificant and between legitimate and illegitimate facts.[273]

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[271] As the Court has acknowledged, while

> [c]rime, even in the privacy of one's own quarters, is . . . of grave concern to society, . . . [t]he right of officers to thrust themselves into a home is also a grave concern, not only to the individual but to a society which chooses to dwell in reasonable security and freedom from surveillance.

Johnson v. United States, 333 U.S. 10, 14 (1948); *see also* Arizona v. Hicks, 480 U.S. 321, 329 (1987) (stating that "there is nothing new in the realization that the Constitution sometimes insulates the criminality of a few in order to protect the privacy of us all").

[272] *Cf.* Minnesota v. Carter, 525 U.S. 83, 97 (1998) (Scalia, J., concurring) (observing that the expectations of privacy that society is prepared to recognize as reasonable "bear an uncanny resemblance to those expectations of privacy that this Court considers reasonable" and asserting that the Fourth Amendment does not "leave it to this Court to determine which . . . manifestations of the value of privacy 'society is prepared to recognize as "reasonable"'") (quoting *Katz v. United States*, 389 U.S. at 361 (Harlan, J., concurring)).

[273] Distinctions based on the significance or legitimacy of information could lead to a potentially very slippery slope. So far, the Court has not extended the second variation on the informational content theme to encompass other information within the insignificant or illegitimate categories. In no case since *Place* and *Jacobsen* has it deemed another type of fact to be either insignificant or illegitimate. The explanation may be that no other means of investigation having such

There are no readily apparent, constitutionally defensible criteria for deciding which details are sufficiently insignificant or illegitimate to be beyond the reach of Fourth Amendment shelter. We have no evidence that the Framers regarded certain facts as too unimportant or too unsavory to safeguard. Attempts to discern such lines can only be based on conjecture or our own views regarding the type of information that should or should not be entitled to privacy. I can find no persuasive basis for declaring the nonpossession of illicit substances to be "insignificant" while deeming the presence or absence of a can of chemicals in one's home to be a "critical" fact[274] or deciding that the relative warmth of one's home is an "intimate" detail.[275] Similarly, it is not self-evident why

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limited revelatory potential have appeared. When the occasion presents itself, perhaps we will learn that there are other bits of information about our lives–details about what we are doing or not doing–that simply do not deserve and are not entitled to privacy protection. The danger of such distinctions is illustrated by lower court opinions that have found additional kinds of information to be unworthy of constitutional shelter. *See, e.g.*, United States v. 15324 County Highway E, 219 F.3d 602, 604 (7th Cir. 2000) (basing conclusion that thermal imaging of home was not a search on fact that "heat emanations" from the home "were more like . . . the scent of drugs dogs can detect in luggage"); United States v. Robinson, 62 F.3d 1325, 1330 (11th Cir. 1995) (deciding that thermal imaging of dwelling was not a search because there was "[n]o revelation of intimate, even definitive, detail," but "merely a gross, nondiscrete bright image" and because "infrared surveillance . . . is analogous to the . . . [use] of drug-detecting dogs to locate contraband"); LaFollette v. Commonwealth, 915 S.W.2d 747, 749 (Ky. 1996) (holding thermal imaging of residence not to be a search in part because "[u]nlike telephone taps or electronic devices that penetrate the walls of a home, heat waste does not disclose any fact intimate or personal about the occupant").

[274] In *United States v. Karo*, 468 U.S. 705, 715 (1984), the Court did deem that fact to be "critical" and deserving of protection. The Court indicated that if a beeper were to discern that a can of chemicals no longer remained in a house, it would breach an interest in privacy that merited protection. *Karo*, 468 U.S. at 715 (noting that subsequent monitoring of a beeper attached to an item that has been seen entering a home "not only verifies" the visual observations "but also establishes that the article remains on the premises"); *id.* at 716 (reasoning that beeper monitoring is constitutionally regulated because it allows the government "to determine . . . *whether* a particular article–or person, for that matter–is in an individual's home at a particular time") (emphasis added). The absence of such an object in one's home seems quite similar to the absence of contraband in one's luggage. As will be seen, I do not mean to cast any doubt upon the *Karo* Court's conclusion. I believe that it reflects a preferable interpretation of the Fourth Amendment's threshold.

[275] In *Kyllo*, the Court deemed this fact and all other facts about the

the possession of contraband is a constitutionally illegitimate detail while the possession of a "precursor" chemical used to manufacture contraband is a legitimate and protected fact.[276] The lack of constitutionally defensible criteria for making such decisions is further reason to reject the distinctions adopted by the Court.[277]

I start from the premise that the Fourth Amendment bestows a right to choose which facts we wish to keep secret and that all facts we take adequate steps to conceal have legitimate claims to constitutional shelter.[278] Without evidence that the Framers held a different view, the declaration that some matters do not deserve protection seems presumptuous, speculative, and unprincipled.[279] I would assume that the Constitution grants an unlimited right to maintain the privacy of all information about our lives. Those who assert

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home–including information about the character of the rug in one's entryway–to be "intimate" and deserving of protection. 533 U.S. at 37-38.

[276] In *Karo*, the government's use of a beeper to determine whether a can of precursor chemicals was in a home was deemed a search because that action could reveal the presence or absence of the can. 468 U.S. at 715.

[277] There is a similarity between the reasoning in *Place* and *Jacobsen* and the reasoning employed in *Oliver v. United States*, 466 U.S. 170 (1984), to support the conclusion that "open fields" are entitled to no Fourth Amendment shelter. *Oliver*, 466 U.S. at 177. The Court asserted that the activities that occur in open fields were not of a character to merit constitutional privacy protection. *Id.* at 178-79. While I do not necessarily agree with that assertion, the Court offered both textual and historical bases for believing that the Framers had decided to put information about matters occurring in privately-owned open fields beyond the protection of the Fourth Amendment. *See id.* at 176-81 (observing that the text of the Constitution does not mention open fields and relying upon the common law distinction between curtilage, which was protected, and open fields, which were not).

[278] This does not mean that the facts deemed insignificant or illegitimate by the Court are immune from government acquisition. It merely means that the use of technological methods to uncover those facts is subject to the same constitutional constraints as nontechnological means.

[279] Put simply, the conclusion that some information about our lives falls outside the sphere of Fourth Amendment protection has no apparent foundation in the text, history, experience, or values that should inform interpretations of that provision. *Cf.* United States v. Rabinowitz, 339 U.S. 56, 83 (1950) (Frankfurter, J., dissenting) (the determination of whether a search is reasonable requires "some criteria of reason" such as "the history or experience which [the Fourth Amendment] embodies and the safeguards afforded by it against the evils to which it was a response").

that there are constitutional limitations on the nature or content of the information we are entitled to keep confidential have not proven their case.

At the time the Constitution was adopted, the only means of learning whether a person was or was not in possession of contraband would have been by physical intrusions triggering Fourth Amendment scrutiny.[280] Scientific progress has afforded means of breaching the confidentiality of that same information without physical intrusion. Because the confidentiality of the details at issue would have been protected in an earlier time and because there is no evidence that those who drafted the Fourth Amendment did not value the entitlement to keep them secret, I would not declare those details to be constitutional pariahs. I would reject the second variation on the informational content theme, holding that exploitations of scientific advances to reveal *any* concealed, otherwise inaccessible information are within the purview of Fourth Amendment control.[281]

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[280] Actually, a distinction between dog sniffs and field tests may well be in order. A canine sniff of luggage reveals some information that only a physical intrusion into luggage could have revealed in an earlier time. A field test, however, discloses effectively concealed information–the identity or nonidentity of the substance–that could not have been disclosed even by means of physical intrusion. The substance would have to have been "tested" in some manner to ascertain its identity. If there were a means of identifying what the substance was or was not that would not have triggered Fourth Amendment coverage, then a field test that reveals that same information should not be deemed a search. The reason for that conclusion, however, would not be that the information revealed was too insignificant or illegitimate. Rather, the reason would be that the field test merely uncovered information that would have been accessible to human senses at the time the Fourth Amendment was adopted without an intrusion governed by that provision. Put otherwise, the field test developed by science would not threaten diminution of the domain of privacy originally provided.

[281] A device or method that can breach the confidentiality of any facts that could have been learned only by a physical intrusion when the Constitution was adopted is an effective surrogate for the conduct that the Framers subjected to a reasonableness requirement. If the novel investigatory means reveals only certain, limited sorts of information, the threat to confidentiality may well be less severe than the threat posed by physical intrusion. The difference, however, seems to be a difference in degree, not in kind. Over 115 years ago, in *Boyd v. United States*, 116 U.S. 616 (1886), the Court warned about "illegitimate and unconstitutional practices that get their first footing . . . by silent approaches and slight deviations from legal modes" and about "stealthy encroachments." *Boyd*, 116 U.S. at

c. The Third Variation: Official Conduct that Reveals Any Information About the Home

The third variation on the informational content theme has provided significant support for the holdings in the only two post-*Katz* cases in which the Court has concluded that official uses of technological devices crossed the Fourth Amendment's threshold. In *United States v. Karo*,[282] the Court held that government agents conducted a search when they used an electronic monitoring device, a beeper, to locate a can of chemicals inside private residences.[283] The beeper twice enabled the agents to ascertain that the can had remained inside a particular home.[284] After setting forth the elementary propositions that expectations of privacy in homes are reasonable and that physical intrusions into dwellings violate those expectations and constitute searches, the Court declared that the same result had to follow when officials use "an electronic device to obtain information [they] could not have [otherwise] obtained by observation from outside the curtilage of the house."[285] While the Court acknowledged that electronic surveillance like the beeper monitoring in *Karo* is "less intrusive" than a physical entry,[286] it rejected the assertion that the result was "only a minuscule intrusion on protected privacy interests" in the home.[287] Instead, because

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635. The Court declared that judges must "liberally construe[]" the Fourth Amendment, avoiding interpretations that "lead[] to gradual depreciation of the right." *Id.* This wisdom and admonition seem most apposite in this context. Although the deviation reflected in *Place* and *Jacobsen* may be "slight," it is the sort of "stealthy encroachment[]" upon Fourth Amendment reach that diminishes and can lead to further "depreciation" of the privacy protected by that provision.

[282] 468 U.S. 705 (1984).

[283] *Karo*, 468 U.S. at 715.

[284] *Id.*

[285] *Id.*

[286] *Id.* This conclusion is apparently based on the fact that beeper monitoring from outside a dwelling without physical intrusion into the interior by a percipient human being leaves much of the privacy of the dwelling intact insofar as it does not breach the confidentiality of any other details sheltered by the home. Moreover, there is no threat to interests in quiet repose within the dwelling.

[287] *Id.* at 717.

the beeper monitoring "reveal[ed] *a critical fact about the interior of the premises*,"[288] it crossed the border of Fourth Amendment territory.

In *Kyllo*, an officer scanned an Oregon dwelling with a thermal imager, a mechanism that could detect the relative amount of infrared radiation emanating from the home. The device showed certain areas of the home to be warmer than others and revealed that the dwelling as a whole was warmer than neighboring homes. The question was whether this exploitation of technology had crossed the Fourth Amendment's threshold. Justice Scalia observed that while it had been difficult to apply the *Katz* reasonable expectation of privacy doctrine in some situations, in the home interior context "there is a ready criterion, with roots deep in the common law, of the minimal expectation of privacy that *exists*, and that is acknowledged to be *reasonable*. To withdraw protection of this minimum expectation would be to permit police technology to erode the privacy guaranteed by the Fourth Amendment."[289] To guard against such technological erosion, the Court decided that the authorities trigger Fourth Amendment scrutiny whenever they use "sense-enhancing technology" that "is not in general public use" to obtain "*any information regarding the interior of the home* that could not otherwise have been obtained without physical 'intrusion into a constitutionally protected area.'"[290] Because the use of a thermal imager on a residence satisfied this standard, it was deemed a search.

In *Karo*, the government had argued that because the beeper discloses merely that an object is located in a home, its use "constitutes only a minuscule intrusion on protected privacy interests."[291] The Court strongly disagreed, responding that the danger to home privacy was significant because the location of an object within a home was "a critical fact about the interior of the premises."[292] In *Kyllo*, the government had asserted that thermal imaging did "not 'detect private activities occurring in private places'" or "reveal any 'intimate details.'"[293] The argument was essentially that the information that could be secured by the exploitation of the device–the relative amount of heat emanating from in-home activities–was insignificant and undeserving of constitutional protection. The majority categorically repudiated this contention, announcing that "protection of the home has never been tied to measurement of the quality or the quantity of information obtained," because "[i]n the home, . . . *all* details are intimate details."[294]

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[288] *Id.* at 715 (emphasis added).

[289] *Kyllo*, 533 U.S. at 34.

[290] *Id.* (emphasis added).

[291] *Karo*, 468 U.S. at 717.

[292] *Id.* at 715.

The Court's message seems clear. There is no informational content limitation on the protection afforded confidentiality in private dwellings.[295] At least in home settings, the nature or amount of confidential information that can be revealed by a technological tool is irrelevant.[296] There is neither a qualitative "intimacy" standard nor a quantitative "substantiality" standard that needs be met. *All* information, *every* fact, *every* detail is critical, intimate and entitled to the privacy protection afforded by the Fourth Amendment.[297]

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[293] *Kyllo*, 533 U.S. at 37. The lower court opinion in *Kyllo* provided support for the government's contention. *See* United States v. Kyllo, 190 F.3d 1041, 1047 (9th Cir. 1999) ("The thermal emission scan performed on Kyllo's residence . . . did not expose any intimate details of Kyllo's life.").

[294] *Kyllo*, 533 U.S. at 37.

[295] In my view, *Karo* and *Kyllo* wholly undercut the suggestion in *Smith v. Maryland* that the fact that a pen register could only capture numbers dialed, not words spoken, supported the conclusion that no reasonable expectation of privacy was violated. *See Smith*, 442 U.S. at 744. Under the principle of *Karo* and *Kyllo*, the numbers dialed from a home telephone are critical and intimate facts about the home interior that merit Fourth Amendment protection. A device that could sense those numbers would be governed by the Fourth Amendment unless, as in *Smith*, there were other reasons to conclude that acquisition of the numbers was not a deprivation of privacy.

[296] As mentioned earlier, it remains possible that the fact that contraband is not or is present in a home *may* be an exception to this otherwise broad protection for home informational privacy. *See supra* note 204 and accompanying text.

[297] It is possible, however, that the amount or nature of the information disclosed by a particular technological tool could support the conclusion that technological intrusion would be reasonable on less than the showing needed to justify physical intrusion into a home. In *Karo*, the Court intimated that reasonable suspicion might be enough to justify in-home beeper monitoring. 468 U.S. at 715 n.5. The *Kyllo* opinion contained no similar intimation, but the possibility that thermal imaging on less than probable cause would be reasonable cannot be ruled

The Court's staunch refusal to distinguish between substantial and insubstantial and between intimate and nonintimate information has found expression only in cases involving home interiors. The critical importance of the home context to the conclusions reached in *Karo* and *Kyllo* is unmistakable.[298] It is uncertain whether these two opinions reflect a broader principle that governs technological intrusions in other private spheres–persons, inanimate possessions, offices and vehicles, for example.[299] In my view, the governing prin-

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out. Because my concern is with the questions of whether and when the Fourth Amendment provides any protection against particular technologies, I do not discuss the issue of diminished standards of reasonableness. A conclusion that lesser showings suffice because the threats to privacy are less severe is arguably consistent with the balancing analysis reflected in some of the Court's precedents. *See e.g.*, New Jersey v. T.L.O., 469 U.S. 325 (1985) (holding that standard for reasonableness of school searches is less than probable cause in part because of lesser threats to privacy); Terry v. Ohio, 392 U.S. 1 (1968) (holding that a frisk is reasonable on less than probable cause in part because the intrusion on privacy is less than that involved in a full-scale search). That conclusion is arguably inconsistent with the Court's unwillingness to endorse lower standards in other cases. *See, e.g.*, Minnesota v. Dickerson, 508 U.S. 366 (1993) (concluding that tactile manipulation of object in suspect's pocket for evidentiary purposes constitutes a sufficient intrusion on privacy to require probable cause); Arizona v. Hicks, 480 U.S. 321 (1987) (deciding that movement of turntable to inspect the bottom is sufficient invasion of privacy to require probable cause).

[298] For a thorough discussion of the importance of the home as a locational factor in threshold analyses, see *infra* notes 367-85 and accompanying text.

[299] One trying to read the Court's sparse tea leaves can find indicators pointing in each direction. On one hand there is the suggestion in *Karo* that the monitoring of a beeper to learn the contents of a storage locker might constitute a search. *See* 468 U.S. at 721 n.6 (stating that defendants had a "reasonable expectation of privacy" within a rented storage locker and, consequently, that beeper monitoring disclosing whether a container was inside the locker would have been a search); *see also id.* at 733 & n.8 (Stevens, J., concurring and dissenting) (asserting that Fourth Amendment protection against indiscriminate monitoring of beepers "is not limited to times when [a] beeper [is] in a home" and concluding that the *Karo* majority "seems to acknowledge" the validity of that view "since it indicates that the location of property can be private even when not in a home"). On the other hand, the opinions in *Dow Chem. Co. v. United States*, 476 U.S. 227 (1986), and *Florida v. Riley*, 488 U.S. 445 (1989), indicate that the Court could adopt a different view in contexts outside the home. Among the relevant variables relied on to deny protection in *Dow* was the fact that the aerial mapping camera did not disclose *intimate* information about the commercial curtilage. 476 U.S. at 238. And the plurality opinion in *Riley* cited the lack of *intimacy* of the facts learned in reaching the conclusion that the surveillance of residential curtilage was not a search. 488 U.S. at 452.

ciple is eminently sound and consistent with a proper understanding of Fourth Amendment objectives. It ought to be generalized and extended to every setting in which reasonable privacy expectations exist. If a technological tool is capable of revealing concealed details and is exploited in ways that enable the perception of those otherwise inaccessible details, the substantiality or intimacy of the matters perceived should not affect the determination of whether the Fourth Amendment threshold has been crossed.

In *Kyllo*, Justice Scalia indicated that there was no constitutionally defensible basis for concluding that some in-home facts are unworthy of protection.[300] I am aware of no basis for believing that the Framers intended substantiality or intimacy limitations on the details that we are entitled to keep confidential in other arenas. Justice Scalia also relied in part on the "impracticality" of a distinction based on the quality or quantity of information that is or could be secured.[301] Impracticality also counsels strongly against efforts to determine which facts in other private domains are sufficiently substantial or private to merit protection. There are no ready criteria to guide such judicial determinations, at least none with roots in the Constitution. Efforts to draw and implement lines would be both unprincipled and costly.

In sum, absent a showing of some reason to believe that the Framers would have been unconcerned with physical searches that uncovered only certain amounts or kinds of information, we should not impose such an informational content limitation on Fourth Amendment coverage in threshold technology cases. Technological devices should not be deemed outside the reach of the Fourth Amendment based on judgments about the quantity or quality of the information they can or do disclose.

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[300] 533 U.S. at 37 ("The Fourth Amendment's protection of the home has never been tied to measurement of the quality or quantity of information obtained.").

[301] *Id.* at 38 ("Limiting the prohibition of thermal imaging to 'intimate details' would not only be wrong in principle; it would be impractical in application, failing to provide 'a workable accommodation between the needs of law enforcement and the interests protected by the Fourth Amendment.'") (quoting Oliver v. United States, 466 U.S. 170, 181 (1984)).

The content of the information that can be acquired by a technological device can be relevant to deciding whether the Fourth Amendment's threshold has been crossed. Confidentiality is not threatened by the government's use of a scientific method or technological mechanism with absolutely no revelatory potential. However, when a device or technique does expand human perceptive or acquisitive capacities in ways that enable the authorities to access information that is otherwise imperceptible because it is effectively concealed in private spheres, the Fourth Amendment should be applicable. The notion of informational content provides a solid foundation for a singular, bright line of division between exploitations of technology that pose no threat to informational privacy at all and those that threaten to uncover otherwise confidential information about a person's life. In the absence of evidence that other distinctions were contemplated by the Framers, I advocate a simple, practical dichotomy between those innovations that can reveal nothing at all and those with the potential to uncover *any* confidential details that would otherwise be inaccessible. While less expedient and more restrictive of law enforcement than the current doctrine, this bright line seems more principled than one that calls upon the judiciary to divine which details about our lives are worthy and which are unworthy of constitutional shelter.

3. The "Nature and Character of the Technology" Variables

The third category of relevant variables in threshold technology opinions is the "nature and character of the technology." Each factor included here pertains to some aspect of the device or mechanism exploited by the government. Once again, there are three variations on the general theme: sophistication versus conventionality and the magnitude of sense enhancement, general availability to the public and general public use. The first two have been influential, but never determinative in threshold decisions, while the third variation has dictated the resolution of threshold issues.

a. *The First Variation: Sophistication Versus Conventionality and the Magnitude of Sense Enhancement*

Whether a technological tool is sophisticated or unique rather than conventional or ordinary and the extent to which it augments ordinary human capabilities have been influential considerations in threshold cases. Neither variable has been decisive, and the amount of weight to be accorded to each is uncertain.

The situation in *Dow Chemical Company v. United States*[302] involved two different technological enhancements of human faculties. Officials employed both an aircraft and "a standard floor-mounted, precision aerial mapping camera"[303] to take pictures of commercial curtilage from navigable airspace. The Court found that this conduct did not constitute a search, basing that conclusion on a unique combination of several variables.[304] According to the majority, the use of the camera did not violate a reasonable expectation of privacy in part because it was a "conventional, albeit precise, commercial camera commonly used in mapmaking."[305] Officials had not used "unique sensory device[s]" or "highly sophisticated surveillance equipment."[306] Moreover, the photographs taken by the camera were "not so revealing of intimate details as to raise constitutional concerns."[307] Although the camera did enhance vision "somewhat" and provided "more detailed information than naked-eye views"[308] could have furnished, the surveillance did not involve electronic devices that "penetrate[d] the walls of buildings and record[ed] conversations" or photographic equipment that had the capacity to reveal "intimate details."[309] In sum, the "conventional" character of the camera and the relatively limited degree to which it increased ordinary human abilities to perceive otherwise inaccessible information contributed to the conclusion that the Fourth Amendment threshold was not crossed.[310] Thus, devices that are not sophisticated or unique and not capable of dramatic or substantial sense enhancement are less likely to cross the Fourth Amendment border.[311]

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[302] 476 U.S. 227 (1986).

[303] *Dow Chem. Co.*, 476 U.S. at 229.

[304] *Id.* at 239. As will be seen, in addition to the conventionality and relatively small amount of sense enhancement, the Court relied on the general public availability of the camera and on the commercial curtilage character of the location surveilled.

[305] *Id.* at 238.

[306] *Id.*

[307] *Id.*

[308] *Id.*

On the other hand, in *Kyllo v. United States*,[312] the Court's most recent word on the relationship between technology and the Fourth Amendment, the majority reasoned that the "relatively crude"[313] character of the thermal imager used and the fact that it did not and could reveal particularly intimate details could not be decisive because "the rule [that the Court] adopt[ed had to] take account of more sophisticated systems that are already in use or development"[314] and because in the home "*all* details are intimate details."[315] While *Kyllo* is not irreconcilable with *Dow*,[316] it suggests potential ambivalence about the relevance of the sophistication and extent of enhancement variables, raising questions and doubts about the influence they ought to have in threshold technology analysis.

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[309] *Id.*

[310] *Id.* The Court asserted that "[t]he mere fact that human vision is enhanced *somewhat, at least to the degree here*, does not give rise to constitutional problems." *Id.* (emphasis added). The Court minimized the fact that "under magnification power lines as small as 1/2-inch in diameter [could] be observed" in the pictures that were taken in *Dow*. *Id.* at 238 n.5. The majority explained that these power lines could be seen "only because of their stark contrast with the snow-white background" and proceeded to point out that "[n]o objects as small as ½-inch in diameter such as a class ring, for example, are recognizable, nor are there any identifiable human faces or secret documents captured in such a fashion as to implicate more serious privacy concerns." *Id.*

[311] The Court's opinion in *United States v. Knotts*, 460 U.S. 276 (1983), arguably provides additional support for the relevance of these attributes of the technology at issue. In dictum, the Court indicated that the use of a "searchlight" or "field glass" to see what could not otherwise be seen by human eyes would not trigger Fourth Amendment scrutiny. *Id.* at 283 (quoting United States v. Lee, 274 U.S. 559, 563 (1927)); *see also* Texas v. Brown, 460 U.S. 730, 740 (1983) (asserting that the use of a flashlight to enable an officer to see the contents of a vehicle "trenched upon no right secured . . . by the Fourth Amendment," and concluding that "the use of artificial means to illuminate a darkened area simply does not constitute a search, and thus triggers no Fourth Amendment protection"). While neither the *Knotts* nor the *Lee* Court explained the rationale for this conclusion, one plausible explanation is that the devices referred to are conventional and do not dramatically enhance human perceptive capacities. In fact, they seem less sophisticated or unique and less expansive of human perceptive powers than the aerial mapping camera used in *Dow*.

[312] 533 U.S. 27 (2001).

[313] *Kyllo*, 533 U.S. at 36.

In my view, the *Kyllo* majority's reluctance to tie the threshold determination to the lack of sophistication of the thermal imager or to the magnitude of augmentation of ordinary perception is a positive development. The Court has proffered no explanation for reliance on these attributes, and I perceive no logical constitutional premises that sustains the decision to accord them any influence. There is no apparent reason that the reach of the Fourth Amendment should hinge on whether a device is complicated or esoteric or on whether it increases perceptive and acquisitive powers substantially or modestly. If a tool unknown to the Framers provides additional access to *any* confidential details that could not have been sensed by unregulated means at the time the Constitution was framed, exploitation of that tool jeopardizes cognizable interests in informational privacy. The failure to subject such a scientific or technological development to the Fourth Amendment's reasonableness regime can only result in shrinkage of the privacy sought to be preserved by the Framers. If a device enables the authorities to gain *any* access that they would not have had at the time the Constitution was framed–at least not without intrusions that would have been regulated–its use should be governed by the Fourth Amendment. The result of making threshold determinations dependent on these is superficially appealing, but logically indefensible, criteria is infidelity to the aims of those whose wisdom protected us against unreasonable searches.[317]

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[314] *Id.*

[315] *Id.* at 37.

[316] *Kyllo* did not hold that the two considerations were irrelevant, but only that they could not support a different threshold conclusion for thermal imaging of private homes. *Dow* simply accorded the variables some influence in a situation involving aerial photography of commercial curtilage. *Kyllo* could mean that sophistication and magnitude of enhancement are irrelevant in home interior contexts. Alternatively, it could mean that while those factors deserve some influence, they are insufficiently weighty to tip the balance in home interior cases.

I understand that the absolute, bright-line approach proposed could meet resistance. The notion that the use of a searchlight, flashlight, pair of binoculars or ordinary telephoto camera lens to perceive otherwise imperceptible details could qualify as a search might seem contrary to common sense and reflective of an excessively indulgent interpretation of the Fourth Amendment. I admit that intuition and instinct push me toward the contrary conclusion.[318] Nonetheless, I prefer the conclusions yielded by reason, logic, and adherence to the privacy protective goals of the Framers. Proponents of this variation on the nature and character of the technology theme must furnish persuasive constitutional justifications for allowing the conventionality and degree of enhancement to inform threshold inquiries. In the absence of such justifications, these variables should be declared irrelevant to threshold technology analysis.[319]

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[317] Less sophisticated, more ordinary mechanisms that increase human abilities less substantially may well result in more limited losses of privacy. There is no basis, however, for concluding that the Fourth Amendment is entirely unconcerned with relatively small deprivations of privacy. If the amount of sense enhancement a device is afforded was truly negligible, perhaps the danger to privacy could be insufficient to trigger constitutional protection. I would reserve such an exception, however, for the rarest of *de minimis* cases. In any case in which the technological enhancement results in a measurable infringement on confidentiality it should be deemed a search and subjected to Fourth Amendment regulation. That is not to say that the showing necessary to render such a search reasonable might not properly depend on the magnitude of the privacy deprivation. *See supra* note 298 and accompanying text (discussion of the same possibility in connection with *Karo*).

[318] On the other hand, practicality provides substantial support for my conclusions. Not only are the sophistication versus conventionality and magnitude of enhancement variables theoretically unjustified, they require difficult distinctions between those devices that are sufficiently sophisticated or unique and those that instead are conventional and between a degree of enhancement that militates in favor of constitutional control and an extent of enhancement that counsels against regulation. There are no ready analytical standards for making these difficult decisions.

[319] As is evident, I categorically reject the notion that small privacy deprivations at the hands of technology are somehow acceptable or tolerable. As the *Boyd* Court recognized over a century ago, "the obnoxious thing in its mildest and

b. The Second Variation: The General Public Availability of a Technological Device

The majority opinion in *Dow* also relied on the premise that the aerial mapping camera used was "generally available to the public."[320] The implication is that the fact that a device is generally available to–that is, can be readily acquired by–members of the public militates against a conclusion that its use by the government to enhance the perception and acquisition of otherwise confidential information constitutes a search. How available a device must be to have such influence is entirely uncertain.[321]

The fact that members of the public *could* readily gain possession of a mechanism is not a reason for declaring its exploitation outside the realm of constitutional concern. The *Dow* Court offered no defense for according this variable any weight, and again I can discern no constitutionally logical foundation for reliance on mere availability alone, no matter how "general" it may be. The fact that members of the public *could* or *might* acquire a particular tool and *could* or *might* use it to access otherwise inaccessible, confidential information about individuals' lives does not bear upon, much less undermine, the legitimacy of the interest in preserving the

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least repulsive form" is still "the obnoxious thing." Boyd v. United States, 116 U.S. 616, 635 (1886). Reliance on these variables to find technological exploitation beyond Fourth Amendment reach permits "illegitimate and unconstitutional practices [to] get their first footing . . . by silent approaches and slight deviations from legal modes of procedure." *Boyd*, 116 U.S. at 635. The way to avoid that undesirable consequence is to "liberally construe[]" the vital Fourth Amendment safeguards, remaining ever "watchful" against "stealthy encroachments" upon "the constitutional rights of the citizen." *Id.* Although the *Boyd* Court's references to "silent approaches," "slight deviations," and "stealthy encroachments" were not aimed at technological threats, they seem eminently pertinent. They stand as admonitions against the conventionality and relatively small capacity for sense enhancement variables.

[320] *Dow Chem. Co.*, 476 U.S. at 238.

[321] Again, the notion of "general public availability" could be the basis for the *Knotts* Court's dictum that uses of searchlights and field glasses would not be governed by the Fourth Amendment. *See supra* note 312 and accompanying text. These tools might have been deemed beyond the reach of the Constitution because they can be acquired by the general public with relative ease.

secrecy of that information. Availability alone does not have a cognizable impact on the confidentiality of the facts that the device could empower actual possessors to perceive.[322]

When the government uses a sense-augmenting tool to perceive and learn details that would otherwise be inaccessible, it deprives individuals of genuine privacy interests that existed when the Fourth Amendment was adopted and have remained intact in modern times. The same conclusion follows whether the particular technology is unavailable, narrowly available, or generally available to members of the public. Absent some explanation of how the public availability variation on the nature and character of the technology theme is consistent with the objectives of the Framers, the Court should deem it inapposite to threshold technology determinations.[323]

c. *The Third Variation: "General Public Use" of a Technological Device*

A much more influential and intriguing variable within this category, one that has proven decisive in controversial threshold technology cases, is whether a particular device is in "general public use."[324] Alternatively, this factor has been described as whether public use of the technology is "routine,"[325] is "sufficiently rare,"[326] or occurs "with sufficient regularity."[327] When tools that enhance ordinary human abilities to perceive and acquire information that would otherwise remain confidential are generally or routinely used by the public, official exploitations of those tools do not cross the Fourth Amendment threshold.[328] If properly understood and applied, this variable is a potentially defensible determinant of whether technological exploitation constitutes a search. The Supreme Court, however, has misapplied the criterion, according it decisive influence in situations where the logical prerequisites for finding general public use were not present.

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[322] As will be seen, I reach a different conclusion with regard to actual "general public use" of a technological tool because of the potential impacts that factor has on the scope of legitimate privacy expectations in contemporary society.

[323] The role and weight of the general public availability factor in *Dow* is indeterminate. The conclusion that use of the aerial mapping camera did not constitute a search rested on the conventionality of the camera, the relatively limited expansion of human perception, the general availability to the public, *and* the lesser privacy expectations associated with the area photographed. Without close analysis, this combination of factors might seem to provide substantial support for the Court's threshold conclusion. When examined carefully, however, it becomes apparent that most, if not all of these factors are logically irrelevant to threshold analysis. Together, they do not furnish a solid foundation for the decision that the use of the camera was not subject to constitutional regulation.

[324] The phrase "general public use" was adopted by the Court in *Kyllo v. United States*, 533 U.S. 27, 40 (2001).

[325] California v. Ciraolo, 476 U.S. 207, 215 (1986) (relying on fact that we live "[i]n an age where private and commercial flight in the public airways is rou-

During the 1980s, the Supreme Court twice addressed aerial surveillance of residential property.[329] In the first and most significant of the cases, *California v. Ciraolo*,[330] officers flew over the defendant's backyard at the legally navigable altitude of 1000 feet, and, with their naked eyes, spied marijuana growing there. In *Florida v. Riley*,[331] a police officer hovered in a helicopter over a greenhouse at the lawful altitude of 400 feet, and by unaided vision was able to see what he believed to be marijuana. Both property owners claimed that the aerial surveillance was a "search" because it had

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tine").

[326] Florida v. Riley, 488 U.S. 445, 451 (1988) (observing that there was "nothing in the record or before us to suggest that helicopters flying at 400 feet are sufficiently rare in this country").

[327] *Riley*, 488 U.S. at 454 (O'Connor, J., concurring in the judgment) (stating that "the relevant inquiry" is "whether the helicopter was in the public airways at an altitude at which members of the public travel with sufficient regularity").

[328] The *Kyllo* majority traced the "general public use" doctrine to "the Court's precedent," citing *California v. Ciraolo*, 476 U.S. 207, 215 (1986), as the source. *Kyllo*, 533 U.S. at 39-40 n.6. Although the majority indicated that it might be willing "to reexamine that factor" in an appropriate future case, *id.*, for the present, it retained the "general public use" limitation on the reach of the Fourth Amendment.

[329] In *Dow Chem. Co. v. United States*, 476 U.S. 227 (1986), the Court addressed aerial surveillance of commercial property. The holding in *Dow* regarding the government's use of an airplane to gain access to otherwise inaccessible information, *Dow Chem. Co.*, 476 U.S. at 239, also reflects the decisive nature of the "general public use" criterion. There is no reason, however, to discuss the *Dow* opinion here because it adds nothing to the analyses in *Ciraolo* and *Riley*.

[330] 476 U.S. 207 (1986).

[331] 488 U.S. 445 (1989).

intruded upon reasonable expectations of privacy in the areas surrounding their homes. The Supreme Court rejected these claims, finding the surveillance to be constitutionally unconstrained.

Ciraolo laid an analytical foundation that rested first on a very significant declaration in *Katz* concerning homes, privacy and public exposure. While rejecting the physical intrusion requirement and adopting privacy as the guide to Fourth Amendment scope, the *Katz* majority had conceded that "[w]hat a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection."[332] This concession was merely a recognition that informational privacy–the core Fourth Amendment value–is not threatened when an officer, from a legal, public vantage point, uses unaided senses to observe unconcealed facts about a home or other constitutionally protected location. The choice to expose activities to public view contradicts the reasonableness of any claim of confidentiality. Knowing exposure effectively "publicizes" the details, sacrificing the entitlement to secrecy the Constitution would otherwise provide. The *Ciraolo* Court deemed this logic relevant to naked eye aerial surveillance from lawfully navigable airspace. Because the flying public "could have [looked down and] seen everything that the[] officers observed" in Ciraolo's back yard, the officers could do so without crossing the Fourth Amendment threshold.[333] Whether observations are made horizontally from a public sidewalk or vertically from public airspace is of no importance. In either case, there is no deprivation or violation of privacy, but merely capitalization on the person's choice to forfeit confidentiality.

Four dissenters had no dispute with the majority's reasoning when applied to observations of residential property made from ground-level. In their view, observations made from aircraft are a wholly different constitutional animal. Airplanes, a product of technological innovation, afford access to information that was not available when the Bill of Rights was adopted. According to the dissenters, naked-eye aerial observations from the previously unattainable vantage points afforded by aircraft violate reasonable privacy expectations and must be subjected to Fourth Amendment constraints.[334] The contrary conclusion ignores the central lesson of *Katz* and Justice Harlan's warning that technological developments would enable the circumvention and erosion of Fourth Amendment protection if the threshold doctrine did not evolve to meet the challenges posed.[335]

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[332] Katz v. United States, 389 U.S. 347, 351 (1967).

[333] *Ciraolo*, 476 U.S. at 213-14.

The majority's response to the dissent's powerful arguments was that its holding was fully reconcilable with the spirit of *Katz* and with Justice Harlan's concerns. The primary reason why the particular exploitation of technology in *Ciraolo*–use of an aircraft to occupy lawful airspace–did not threaten to undermine the privacy guaranteed by the Fourth Amendment was that "private and commercial flight in the public airways is routine."[336] The authorities do not deprive homedwellers of privacy when they exploit aircraft to gain access to information about homes and curtilage because the public uses the very same technology to occupy the same previously unattainable vantage point.[337]

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[334] *See id.* at 224-25 (Powell, J., dissenting) (concluding that the "aerial surveillance undertaken by the police . . . constituted a 'search'" and was subject to the warrant requirement because it violated the "reasonable expectation of privacy in [the homeowner's] yard").

[335] *Id.* at 215-16, 218 (arguing that the majority "today ignores" Justice Harlan's warning in *Katz* and fails to furnish adequate "protection against surveillance techniques made possible through technology"); *id.* at 222-23 (maintaining that the Court's holding authorizes the police to "use an airplane–a product of modern technology–to intrude visually into [a] yard," a result that is inconsistent with the spirit of *Katz* and insufficiently protective of the "constitutionally protected privacy right" at the core of the Fourth Amendment).

[336] *Ciraolo*, 476 U.S. at 215. The majority also replied that Justice Harlan had been concerned with "future electronic developments and the potential for electronic interference with private communications," not with "simple visual observations from a public place." *Id.* at 214. This additional reason for finding the enhancement of human capacities afforded by aircraft not to be a matter of Fourth Amendment concern is of much less significance. *Ciraolo* is the only opinion to give it expression, and it was unnecessary to the resolution of the claim that use of the airplane crossed the Fourth Amendment threshold. On the merits, the suggestion that technological advantages that enhance access to otherwise confidential information are of less concern if they do not constitute electronic interference with private communications is lacking in logical support. There is, quite simply, no reason that nonelectronic technological advances are less threatening to privacy. Moreover, there is no reason that private communications should be granted special protection not available to other sources of information about our private lives.

In *Riley*, a plurality of the Court adhered to the basic logic of *Ciraolo*. The use of the helicopter to increase human abilities to observe matters occurring on constitutionally protected residential property did not cross the Fourth Amendment border because private and commercial helicopter flight in public airways was routine in the United States and was not "unheard of" in Riley's county.[338] There was no evidence that public flights at 400 feet, a lawful altitude for helicopters, were "sufficiently rare," and any member of the public in such an aircraft at that altitude "could have observed Riley's greenhouse."[339] Justice O'Connor, who provided the critical fifth vote for the holding in *Riley*, asserted that in determining whether the use of aircraft crosses the constitutional threshold it was critical to determine whether "members of the public travel" at a particular altitude "with sufficient regularity."[340] Only if a "vantage point [is] generally used by the public" is it fair to find knowing exposure and conclude that it is unreasonable to expect privacy against official surveillance from that vantage point.[341] Because there was "reason to believe that there [was] considerable public use of airspace at . . . 400 feet and above" and "no evidence to the contrary," Justice O'Connor agreed that the officer had not conducted a

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[337] The Court did indicate that if aerial surveillance was conducted in a physically intrusive manner or if it was used in conjunction with other sense-enhancing technologies that could disclose concealed information about residential property, the Fourth Amendment would be applicable. *Id.* at 215 n.3 (quoting government's acknowledgment that "'[a]erial observation of curtilage may become invasive, either due to physical intrusiveness or through modern technology which discloses to the senses those intimate associations, objects or activities otherwise imperceptible to police or fellow citizens.'") (citations omitted). Like physical intrusion into the curtilage from ground level, it seems clear that physically intrusive aerial surveillance–an overflight that breached the upper border of the protected space surrounding a home–would cross the threshold of the Fourth Amendment.

[338] *Riley*, 488 U.S. at 450.

[339] *Id.* at 451.

[340] *Id.* at 454 (O'Connor, J., concurring in the judgment).

[341] *Id.* at 455.

"search."[342]

Recently, in *Kyllo v. United States*,[343] the Court clarified the lessons that *Ciraolo* and *Riley* teach with regard to the relationship between technology and the Fourth Amendment. *Kyllo* held that the use of a thermal imager to detect heat emanations from a private home was a search. The Court announced that as a general rule the use of "sense-enhancing technology" to secure "any information regarding the interior of the home that could not otherwise have been obtained without physical 'intrusion'" is a search if the technological device employed "is not in general public use."[344] Because the majority could "quite confidently say that thermal imaging [by the public] is not 'routine,'" official exploitation of the imager crossed the constitutional boundary.[345] The *Kyllo* majority explained that the "general public use" limitation on the standard for determining when technology is a matter of Fourth Amendment concern was the product of precedent–specifically, *California v. Ciraolo*.[346] Thus, the *Kyllo* Court explained and clarified a pivotal premise on which the threshold decisions in *Ciraolo* and *Riley* rested. In those cases, the exploitations of technology to afford access to otherwise confidential and inaccessible information about residential properties were not searches because airplanes and helicopters were technological advances that were "in general public use."[347]

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[342] *Id.*

[343] 533 U.S. 27 (2001).

[344] *Kyllo*, 533 U.S. at 34.

[345] *Id.* at 40 n.6.

[346] *Id.* The Court found no need to "reexamine" the limitation in *Kyllo* because of its confidence that thermal imagers were not in general public use. *Id.*

[347] The *Ciraolo* majority and *Riley* plurality had not used this doctrinal phrase. The opinions in those cases had observed that the public's use of aircraft to travel in navigable airspace was "routine," *Ciraolo*, 476 U.S. at 215; *Riley*, 488 U.S. at 450, and, alternatively, that it had not been shown to be "sufficiently rare." *Riley*, 488 U.S. at 451. The *Kyllo* majority believed that "general public use" was an accurate description of the basis upon which those opinions grounded the conclusions that the government's exploitations of technology did not trigger Fourth Amendment scrutiny. The Court also indicated that whether a device is in "general public use" and whether public use of a technological tool is "routine" are equivalent doctrinal inquiries. *See Kyllo*, 533 U.S. at 39-40 n.6 (declaring that use of thermal imagers by the public did not satisfy the *Ciraolo* exception because it

The *Kyllo* Court recognized that scientific or technological enhancements of human abilities to sense and acquire previously inaccessible information imperil the vitality of Fourth Amendment privacy interests.[348] It also acknowledged that the use of aircraft to fly over residential property is an exploitation of technology that enables humans to observe and learn matters that could not be observed and learned in the late eighteenth century and that the consequence was a diminution of the privacy enjoyed at that time.[349] According to the Court, the aerial overflight decisions had already concluded that losses of privacy resulting from exploitations of technological tools are not matters of Fourth Amendment concern if the tools are generally or routinely used by members of the public.[350] *Ciraolo* and *Riley* give the government

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was "not 'routine'").

[348] *Kyllo*, 533 U.S. at 34 (warning that "[t]o withdraw protection" from the expectation of privacy in homes "would be to permit police technology to erode the privacy guaranteed by the Fourth Amendment" and asserting that the standard announced for evaluating whether technology crosses the constitutional threshold "assures preservation of that degree of privacy . . . that existed when the Fourth Amendment was adopted").

[349] *Id.* (stating that "the technology enabling human flight has exposed to public view (and hence . . . to official observation) uncovered portions of the house and its curtilage that once were private"). There can be little doubt that modern day descendants of Orville and Wilbur Wright's invention have bestowed upon humankind the ability to perceive matters that they could not have perceived when the Constitution was formulated except by means that would have been regulated by the Fourth Amendment. While aircraft do not enhance the sense of sight by making it more keen, they expand it dramatically by affording perches that human eyes could not have occupied in an earlier age. (Manned flights by hot air balloon did not begin until 1783–two years after the Bill of Rights was adopted–and the first American flight was not until ten years later. Modern hot air ballooning is reported to have begun as late as 1960. PAUL FILLINGHAM, THE BALLOON BOOK 125-29 (David McKay Company, Inc. 1977)). Technology that furnishes new vantage points for the use of human senses surely can and does augment human perceptual abilities as dramatically as technology that sharpens or extends those senses. By increasing sensory capacities in either way, a technological tool can jeopardize privacy interests that would have been safeguarded against the only means of invasion possible in an earlier era. This is the main reason why the dissenters in *Ciraolo* believed that aerial overflights constitute Fourth Amendment searches.

[350] *Ciraolo* made it clear that it is constitutionally irrelevant that the authorities used aircraft for the specific *purpose* of surveillance while members of the public use planes to travel. 476 U.S. at 213-14. This conclusion that governmental "purpose" is irrelevant was later reaffirmed in *Bond v. United States*, 529 U.S.

free reign to expand perceptive and acquisitive faculties when the public does so by the same technological means. In those cases, general public use of aircraft to occupy new vantage points justified the conclusion that the home dweller had "knowingly exposed" his property to public view and thereby contradicted the legitimacy of any privacy expectation in the matters exposed.[351]

Two aspects of the current general public use doctrine merit further elaboration. First, *Ciraolo* and *Riley* did not turn on whether fellow citizens actually exploited aircraft to perceive the matters observed by law enforcement. As long as the public routinely or regularly used the technology to occupy the improved vantage point (*i.e.*, flew in fixed-wing aircraft at 1000 feet or in helicopters at 400 feet) and *could have* used unaided senses to perceive what the authorities perceived (*i.e.*, had the ability to look down and see the marijuana), the authorities' *actual* perceptions from the vantage points made possible by aeronautical technology did not violate reasonable expectations of privacy. If the access gained by officials is no greater than the access regularly gained by the public, the authorities are apparently at liberty to exploit that access by perceiving and acquiring more than the public generally perceives and acquires. When members of the public regularly

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334, 338 n.2 (2000) ("The parties properly agree that the subjective intent of the law enforcement officer is irrelevant in determining whether that officer's actions violate the Fourth Amendment."). Apparently, the Court believes that the government agents' "purposes" have no impact on the perils posed to privacy. I will not take issue with that premise.

[351] By explaining that the conclusion in *Ciraolo* was rooted in the general public use doctrine, the *Kyllo* majority made it clear that the holdings in *Ciraolo* and *Riley* could not be justified by the *Katz* "knowing exposure" principle alone. That rationale ordinarily applies only to cases in which details are exposed to ordinary, unaugmented human senses and faculties. As a general rule, when matters are perceptible only by technological enhancements, the conclusion that they are knowingly exposed is not justifiable. A contrary conclusion would enable technological advances to eviscerate the informational privacy sheltered by the Fourth Amendment. The knowing exposure principle is applicable to the authorities' use of perception-enhancing devices when, and only when, the devices used are in general or routine public use. A loss of privacy due to knowing exposure is the exception, not the rule, when technologically-augmented senses are employed to gain access to otherwise inaccessible information.

employ a device to occupy positions from which they *could* make observations, the government does not intrude upon Fourth Amendment interests when it occupies those same positions *and* takes advantage of the newfound opportunities to observe.

Second, none of the Court's opinions discuss the *extent of public use* necessary to invoke the "general public use" doctrine. *Ciraolo* and *Riley* simply declared air travel to be sufficiently routine. The *Kyllo* Court found it obvious that thermal imager use was not sufficient to qualify, but announced no standard for discerning when a device qualifies.[352] Thus, the central element of the doctrine remains undefined and unsettled. In light of the doctrine's potential to authorize unregulated technological incursions into the domain of confidentiality originally preserved in the Constitution, this deficiency is serious.

Unlike the other two variations on the nature and character of the technology theme, the general public use variation can find logical justification that accords with the core values of the Fourth Amendment. If properly understood and applied, general public use is a constitutionally defensible limitation on constitutional scope and a potentially appropriate determinant of whether a particular technology has crossed the threshold. The Court's invocations of the doctrine to justify the conclusions in the aerial surveillance decisions, however, are not reconcilable with the premises that support the general public use criterion and reflect a misconception of the prerequisites for reliance on general public use. I first set out the reasoning that can support the doctrine before explaining the circumstances in which it might properly influence threshold technology decisions and detailing the reasons why it cannot sustain the outcomes in the aerial overflight cases.

Members of the public who use perception-enhancing technology can gain access to otherwise imperceptible, confidential information. When the use of a particular technology is "general," "routine," or "regular," the details that can be learned through the augmentation of human faculties are effectively "exposed" to users. Once the use of a device is known to be (or should be known to be) sufficiently widespread, it may be fair to conclude that individuals who choose to engage in conduct that renders details about their lives perceptible by the device effectively sacrifice or forfeit the privacy interest they would otherwise have in those details. Their "revelatory conduct" yields public exposure that contradicts the legitimacy of any assertions of secrecy. As a consequence, they have no greater constitutional entitlement to confidentiality in the information revealed than those who knowingly expose in-home activities to naked-eye observations from lawful public vantage points.[353]

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[352] *Kyllo*, 533 U.S. at 40.

Enthusiasm for this logic should be tempered to some extent by the consequences that follow. When individuals are charged with sacrificing privacy because their conduct is accessible to technologically-enhanced public perception, the scope of the privacy that was protected prior to the arrival and use of the technology at issue shrinks.[354] It is arguable that such shrinkage is intolerable, that human ingenuity should not be capable of diminishing priceless constitutional liberties, and, consequently, that no matter how much the public exploits technological tools, governmental use of these tools to gain previously unavailable access to confidential matters should be constrained. According to this view, public use of technological innovations should not lead to losses of informational privacy vis-a-vis the government. We should not have to live our lives less freely and more circumspectly because confidentiality protective precautions that could prevent human perception are impotent against superhuman faculties afforded by science and technology.[355]

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[353] For a fuller discussion of the logic of revelatory conduct in other situations, see *supra* notes 206-53 and accompanying text.

[354] Justice Scalia seemed to acknowledge the validity of this point when he asserted that "[i]t would be foolish to contend that the degree of privacy secured to citizens by the Fourth Amendment has been entirely unaffected by the advance of technology," using the aerial overflight cases to illustrate this assertion. *Kyllo*, 533 U.S. at 33-34. He then observed that "[t]he question . . . is what limits there are upon this power of technology to shrink the realm of guaranteed privacy." *Id.* at 34. If information was inaccessible to unaided human faculties–except by means that would have triggered Fourth Amendment scrutiny–the interest in keeping the information confidential would have been sheltered by the constraints imposed by that provision. Officials would have been prevented from learning the details when they could not demonstrate that their conduct was reasonable.

These concerns with technologically-caused shrinkage of constitutionally-sheltered privacy are legitimate. We should not lightly conclude that the Framers would have found such losses of freedom tolerable. It is possible, nonetheless, to reconcile the logic of the general public use criterion with Fourth Amendment premises and values. The logic supporting the general public use doctrine does not rest on the existence of technology alone or even upon mere public use of technology. It hinges upon societal acceptance of general, routine public use of a particular confidentiality-breaching device. Acceptance of general public use provides some evidence that "the People" no longer value the secrecy of the information accessible to technologically-enhanced senses. If the values jeopardized by widespread public use of a device that puts privacy at risk were sufficiently important, one might expect some indication of societal disapproval.[356] If regular public use of a device to access our secrets breeds no evident resentment and provokes no restrictive reaction, one might logically infer a general sentiment that the harm done to privacy is tolerable. If society no longer values and has insufficient concern with maintaining the secrecy of the information perceptible by the sense-enhancing tool, the authorities can plausibly argue that their exploitation of the mechanism in general public use does not deprive individuals of cognizable privacy interests. Instead, it merely takes advantage of the willingness to engage in "revelatory behavior," gaining access to knowingly exposed information in which there is no genuine secrecy interest.

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[355] One might find some support for this argument in the stirring words of Justice Stewart in *Coolidge v. New Hampshire*, 403 U.S. 443, 455 (1971) (emphasis added) (footnote omitted):

> [T]he values that [the Fourth Amendment] represents may appear unrealistic or "extravagant" to some. But the values were those of the authors of our fundamental constitutional concepts. In times not altogether unlike our own they won–by legal and constitutional means in England, and by revolution on this continent–a right of personal security against arbitrary intrusions by official power. *If times have changed, reducing everyman's scope to do as he pleases in an urban and industrial world, the changes have made the values served by the Fourth Amendment more, not less, important.*

[356] This indication could take the form of a legal provision that bars, sanctions or criminalizes the use of or restricts the availability of the technology. Electronic eavesdropping provides an illustration of how adverse societal reactions to the risks of neighbors snooping on our lives can find expression in legal restraints. *See, e.g.*, Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521 (2001). Perhaps even some less extreme, but nonetheless meaningful, expression of disapproval of the public's use of technology to gain access to private lives would suffice.

In construing constitutional guarantees, it makes sense to take changes in both the technological and the attitudinal landscape into account.[357] The protection afforded by a living Constitution might expand or contract due to changes in the fabric of the society for which it was designed. The Framers sought to preserve against unjustified invasion a valued sphere of confidentiality. If modern society no longer values the secrecy of some information, it is not illogical to conclude that the Constitution does not safeguard the secrecy of that information. To tolerate a diminution of privacy in those circumstances–that is, when society has clearly evinced a lack of concern for privacy–does not necessarily betray original values or purposes.

To prevent excessive contraction of constitutional interests, however, the general public use criterion must be invoked only in situations where its logic applies. Official exploitation of a mechanism should be considered beyond Fourth Amendment reach *only* when the mechanism is *actually used by the public with sufficient regularity or routineness*. Moreover, mere public use in some fashion should not suffice. A finding that the public does not value the confidentiality of information can be justified *only if the public regularly or routinely uses the device to perceive that information*. If public use is limited, it does not justify the conclusion that society has accepted losses of privacy occasioned by unrestricted official use or that individuals have knowingly exposed matters learned by the authorities to public view. Restricted public use that does not in fact breach the secrecy of particular facts is more analogous to, and should be treated like, mere availability of a device that the public does not generally use.[358]

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[357] *Cf.* Minnesota v. Dickerson, 508 U.S. 366, 382 (1993) (Scalia, J., concurring) (suggesting that the development of firearms might justify invasions of the privacy and security of persons that would have been impermissible before the advent of that particular technology).

A logical understanding and application of the general public use doctrine cannot support the Court's holdings in the aerial surveillance cases. The facts of *Ciraolo* and *Riley* did not provide a basis for concluding that society does not value the confidentiality of the matters the authorities gained access to by means of the vantage points made possible by aircraft. The public may well have used airplanes to occupy the same vantage points occupied by officers. There was no demonstration, however, that the public in fact used the access furnished by technology to actually perceive matters on the ground. There was no reason to believe that members of the flying public were regularly scanning (or even glancing into) residential property and observing the activities occurring there. There may have been "technical exposure" to naked senses in the sense that there was no physical barrier or obstruction, but there was no actual exposure to anyone except the authorities who surveyed the properties from the technologically-improved vantage points.[359] If the flying public does not routinely monitor our lives from above, then the absence of adverse public reaction, the lack of legal or other restrictions on aerial surveillance, does not evince a lack of concern for the privacy of activities on our residential property. Rather than evincing the lack of an interest in confidentiality, the failure to cover yards may simply reflect the well-grounded belief that what goes on there will not be observed or learned by those who fly in the public airways.

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[358] See *supra* notes 320-23 and accompanying text, for a discussion of the illogic of relying on mere general availability of a device to the public.

[359] *See* Ciraolo v. California, 476 U.S. 207, 223-24 (Powell, J., dissenting) (maintaining that "the actual risk to privacy from commercial or pleasure aircraft is virtually nonexistent," that "travelers" on such aircraft "normally obtain at most a fleeting, anonymous, and nondiscriminating glimpse of the landscape and buildings over with they pass," that the "risk that a passenger on such a plane might observe private activities, and might connect those activities with particular people, is . . . trivial . . . [t]herefore, people do not 'knowingly expos[e]' their residential yards 'to the public' merely by failing to build barriers that prevent aerial surveillance") (alteration in original).

Put simply, the public generally, routinely and regularly uses aircraft for limited purposes and in limited ways. Members of the flying public do not exploit the enhanced opportunities for perception afforded by the improved vantage points. As a result, there does not seem to be a constitutionally adequate reason for concluding that the government's use of aircraft merely takes advantage of revelatory behavior. Instead, it would appear to infringe upon privacy interests in curtilage and homes that were valued when the Constitution was drafted and are still valued today.

The *Ciraolo* Court did not disagree with my assessment of the realities. The basis for the conclusion was that the public routinely occupied the newly-available vantage point afforded by aircraft and *could* look down and see what the officers saw.[360] The Court did not declare that the flying public actually did regularly observe the matters the officers observed.[361] The logic that supports the "general public use" variable requires more than the *possibility* that the public *could* use the technology to improve perception and learn previously imperceptible matters. Unless it is shown that the public actually does make use of the improved abilities to access those matters and that society has accepted such public access, it does not seem constitutionally defensible to find forfeiture of entitlements to confidentiality that would have historically and traditionally been protected.[362]

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[360] *Id.* at 213-14 ("Any member of the public flying in this airspace who glanced down *could have seen* everything that these officers observed.") (emphasis added).

[361] *Id.* at 213. The same was true in *Riley*. The decision was based on public presence in the airways, not public observations of residential property. Florida v. Riley, 488 U.S. 445, 450-51 (1988).

[362] The Court's recent holding in *Bond v. United States*, 529 U.S. 334 (2000), provides powerful support for this understanding and restriction of the "general public use" criterion. *Bond* held that an officer conducted a search by engaging in tactile manipulation of a soft-sided bag in more intrusive ways than are typical of the public's actual handling of such bags. *Bond*, 529 U.S. at 338-39. Officers do not intrude upon reasonable expectations of privacy if they touch and feel bags in the manner and to the extent that the public *actually does* touch and feel the

If it is appropriate to link Fourth Amendment scope to actual public use of a particular sense-enhancing technology, a critical question arises: How much public use is necessary before an otherwise protected entitlement to confidentiality is defeated? Reflected in the current doctrine is a clear, and appropriate, conclusion that not just any amount of public use is sufficient to justify the conclusion that governmental exploitation is not a search. According to the Court, the public's use must be "general," "routine," or "regular" to render it no longer legitimate to expect that the information rendered accessible by such use will remain confidential.[363] The Court has not,

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bags. *Id.* They cross into Fourth Amendment territory, however, intruding upon preserved confidentiality interests, when they use their sense of touch to gain access to and learn more than the public generally learns about the contents of bags. *Id.* It does not matter that the public is in a position to manipulate bags more intrusively and could lawfully do so. *Id.* at 338. In my view, the *Bond* majority implicitly acknowledged that it is not logical to charge individuals with knowing revelatory behavior that defeats an entitlement to confidentiality unless the public actually engages in the conduct that renders that behavior perceptible. *See id.* at 338-39 (observing that "a bus passenger clearly expects that his bag may be handled," but "does not expect that other passengers or bus employees will, as a matter of course, feel the bag in an exploratory manner," and concluding, therefore, that the agent's exploratory "physical manipulation" was a search that "violated the Fourth Amendment"). For purposes of determining whether "knowing exposure" has occurred, there is surely no reason to treat public uses of technology differently from public uses of ordinary human senses. Actual routine or regular public employment of the sense-enhancing device to perceive matters that officials have used it to perceive should be essential for the loss of privacy interests.

Language in *Kyllo* may reflect a recognition of the merits of this position. According to the logic I have explained, the pertinent question in *Kyllo* was whether the public engages in thermal imaging of homes and gains access to information about relative heat levels, not whether the public merely possesses, carries or aims thermal imagers at homes. *Kyllo*, 533 U.S. at 35-36. The determinative inquiry was whether the public actually exploits the increased access to learn otherwise concealed details, not whether the public *could* do so. In declaring that governmental use of thermal imagers to scan homes was regulated, the *Kyllo* majority asserted that it could "confidently say that *thermal imaging* [was] not 'routine.'" *Id.* at 40 n.6. Moreover, the majority did not even acknowledge the dissent's contentions that thousands of similar thermal imagers had been manufactured and that the device is "readily available to the public." *See id.* at 47 n.5 (Stevens, J., dissenting).

[363] In her important concurrence in *Riley*, Justice O'Connor stressed the determinative nature of the requirement that the public be present in the airways at the relevant altitude with "sufficient regularity." *Riley*, 488 U.S. at 454 (O'Connor,

however, prescribed the extent of public use of a technological enhancement that is sufficient to meet this requirement.[364]

While efforts to prescribe a bright-line standard in this area seem futile, if the "general public use" criterion is to be applied in a consistent and principled fashion, some sort of guidance is essential. The standard chosen should be rooted in the rationale for permitting general public use to diminish the scope of constitutional privacy protection. The constitutionally relevant inquiry is whether public use of the device to perceive otherwise inaccessible facts is *frequent* and *obvious* enough to make it logical to infer that society has accepted the losses of confidentiality that have resulted. "General" or "routine" public use should be found only when the *risk* of public access by technological means is high enough to fairly charge the individual with revelatory behavior that sacrifices and forfeits any interest in secrecy.[365] With regard to any particular technology, resolution of the general public use question involves two

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J., concurring in the judgment).

[364] In *Ciraolo* and *Riley*, the Court considered public use of the airways to be sufficiently routine but neglected to provide any additional insight into the extent of use that is sufficient. *Ciraolo*, 476 U.S. at 215; *Riley*, 488 U.S. at 450. After describing the controlling question as whether a device was "in general public use," the *Kyllo* Court could have endeavored to prescribe a standard for ascertaining when use is widespread enough to be considered "general." *Kyllo*, 533 U.S. at 34. Because the majority was "quite confident[]" that thermal imaging of residences by the public fell well short of the extent needed to qualify, it did not need to address the quantitative question. *Id.* at 40 n.6.

[365] The extent of the public conduct and the risk of perception questions are not unique to cases involving technologically-aided perception and acquisition. One who stands in his uncovered front window or unfenced front yard and engages in conduct visible to naked eyes "knowingly exposes" that conduct to the public and has no legitimate expectation of privacy. *See* Katz v. United States, 389 U.S. 347, 351 (1967). One who places soft-sided luggage on a bus does not knowingly expose the contents to probing tactile manipulation by the public. *See Bond*, 529 U.S. at 338-39. In each case, there is a risk or likelihood that the public will learn information by the use of ordinary senses. When officers use their eyes in the first instance to perceive in-home conduct, they do not violate privacy because the risk of being seen by the public is sufficiently high to justify that conclusion. When officers use their fingers in the second situation to sense the contents of luggage, they do violate privacy because the risk of having contents felt by the public is too low to justify a contrary conclusion. There is no reason why the standard chosen for cases involving technology should be different from the standard for cases involving ordinary sense perception.

steps. First, a court must make a genuine effort to ascertain how many members of the ordinary public use the particular device at issue to perceive matters that are beyond the reach of ordinary senses *and* how often such use occurs.[366] Then, a court will have to apply the governing legal standard to the particular case, determining whether the extent of actual use by the public is sufficient to satisfy that standard.

4. The "Location of the Privacy Interest" Variables

I label the final major category of influential variables "the location of the privacy interest." The characters of the physical sites of putative privacy interests have had undeniable effects on the resolution of threshold technology issues. Three variations on the locational theme can be identified. The first is the unmistakable primacy of home privacy. The second is the devaluation of privacy interests in other private domains–particularly residential and commercial curtilage–resulting from the special respect accorded home privacy. The third is the low likelihood of prevailing with a Fourth Amendment threshold claim in public places.

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[366] The pertinent question is not how many members of the public have aircraft or imagers or other devices. If that were the question, then the relatively simple quest would be to measure the percentage of the general public in possession of the particular device. Because the relevant question focuses on the extent to which the device is used to access otherwise confidential information, the measurement task is more complex. I am not sure how best to execute that task. Perhaps one could measure frequency of use in terms of the number of days per year on which the public employs the particular mechanism to gain access or the number of times per year or week that the information that would remain concealed without the tool is actually learned by others or even the percentage of persons in the population who suffer such a loss of privacy of this sort in a particular time span. In the cases discussed–*Ciraolo*, *Riley*, and *Kyllo*–there seems to have been no real effort to measure the extent of public use. The Court simply declared private and commercial air travel to be sufficient and thermal imaging to be inadequate.

a. The First Variation: The Special Vigilance Reserved for Home Sweet Home

The authorities are most likely to cross the Fourth Amendment's threshold when they employ technological innovations to investigate home interiors. It is not coincidental that the only two post-*Katz* instances in which the Supreme Court has found that an exploitation of technology crossed the Fourth Amendment's threshold–*United States v. Karo*[367] and *Kyllo v. United States*[368]–have involved official surveillance of private residences. In *Karo*, the Court observed that the question was "whether the monitoring of a beeper *in a private residence*" infringed on Fourth Amendment interests.[369] The Court's answer to that question began with the straightforward assertions that it is "obvious" that people expect privacy in their homes and that society deems those expectations "justifiable."[370] Beeper monitoring inside a home constituted a search because it revealed "a critical fact about *the interior of the premises*."[371] In *Kyllo*, the Court began its analysis of the relationship between thermal imaging and the Fourth Amendment by observing that although the limits of the *Katz* doctrine had been difficult to discern in some settings, for home interiors "there is a ready criterion, with roots deep in the common law, of the minimal expectation of privacy that exists, and that is acknowledged to be reasonable."[372] Justice Scalia then warned that "[t]o withdraw protection of this minimum expectation would be to permit police technology to erode" Fourth Amendment privacy.[373] To prevent that unacceptable consequence, the Court declared that any use of "sense-enhancing technology" not in general public use to perceive and learn "any information regarding the interior of a home that could not otherwise [be] obtained without physical 'intrusion into a constitutionally protected area,' . . . constitutes a search."[374]

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[367] 468 U.S. 705 (1984).

[368] 533 U.S. 27 (2001).

[369] *Karo*, 468 U.S. at 714 (emphasis added).

[370] *Id.*

[371] *Id.* at 715 (emphasis added).

[372] *Kyllo*, 533 U.S. at 34.

[373] *Id.*

The in-home location of the privacy interests at risk in *Karo* and *Kyllo* clearly restricts the scope of the Court's holdings. It is uncertain whether the controlling principle of those decisions extends to other contexts. For present purposes, the important feature of each opinion is the powerful influence the locational factor had on determinations that the constitutional threshold had been crossed. The holdings that beeper monitoring and thermal imaging of private residences constituted searches were fueled by the special reverence accorded the privacy of home interiors and by a genuine hesitance to allow any technological diminution of home privacy.[375] The historical respect for homes and the clear intent of the Constitution's authors to preserve an entitlement to be left alone in our "castles" weighed heavily in favor of the results reached in both cases.

This is not to say that technologically-aided surveillance of private homes is always regulated by the Fourth Amendment. In *Katz*, Justice Stewart warned that the knowing exposure of matters to the public "even in [one's] own home" precludes Fourth Amendment protection.[376] Even home privacy can be surrendered or forfeited by conduct evincing a lack of, or insufficient interest in, maintaining confidentiality. *Smith v. Maryland*[377] proved that home interiors are not sacrosanct–*i.e.*, that behavior within the four walls is not always sheltered against technologically-enhanced eyes or ears.[378] Although the government used a pen register to perceive and record the numbers dialed from a private residence, the Fourth Amendment did not apply because the individual had voluntarily conveyed the numbers to the cooperating telephone company.[379] Nonetheless, the in-home setting generally lends considerable weight to threshold technology claims[380]

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[374] *Id.* (quoting Silverman v. United States, 365 U.S. 505, 512 (1961)).

[375] Emphasis on the special character of home privacy is not unique to technological contexts. In a variety of situations, "the Court since the enactment of the Fourth Amendment has stressed 'the overriding respect for the sanctity of the home that has been embedded in our traditions since the origins of the Republic.'" Oliver v. United States, 466 U.S. 170, 178 (1984) (Powell, J., concurring) (quoting Payton v. New York, 445 U.S. 573, 601 (1980)). *See, e.g.*, Steagald v. United States, 451 U.S. 204, 211-16 (1981) (stressing the significance of the home as a basis for holding that the Fourth Amendment requires a search warrant to enter the dwelling of one person in order to arrest another individual who does not reside there); Payton v. New York, 445 U.S. 573, 585-90 (1980) (emphasizing the importance of home privacy as a reason for concluding that entry of a person's dwelling to arrest that person for a felony requires an arrest warrant).

[376] Katz v. United States, 389 U.S. 347, 351 (1967).

[377] 442 U.S. 735 (1979).

The Court is right to be exceedingly chary of technological threats to the privacy of dwellings. Heightened vigilance against not only physical, but also technological, breaches of the "firm line at the entrance of the house"[381] is soundly premised and amply warranted by historical purposes and an unaltered tradition of respect for home privacy.[382] Respect for home privacy has deep historical roots.[383] The high value that the Framers placed on home privacy suggests that they would have intended the Constitution to have the flexibility necessary to ensure that scientific and technological advances could not effectively deprive the people of the security and freedom provided by the right to keep matters inside dwellings confidential. Those who were intensely concerned with threats to home privacy posed by physical entries surely would have been deeply troubled by nonphysical threats to those same privacy interests. There is no basis for believing that the Framers placed less value on any particular aspect of in-home privacy or viewed any information about home interiors as undeserving of constitutional shelter.[384] Moreover, the emphasis on home privacy also reflects contemporary values. Time has not diminished society's reverence for the home and for the freedom to keep confidential whatever we choose to do within our private residences.[385] For these reasons, the decision to subject technologies that afford access to *any* otherwise imperceptible details about the home to Fourth Amendment constraints is legitimate, logical and laudable.

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[378] *Smith*, 442 U.S. at 745.

[379] *Id.* at 743.

[380] Even in *Smith*, dissenting Justice Stewart, the author of *Katz*, expressed a belief that the in-home location of the conduct sensed by the pen register militated in favor of a contrary conclusion. *See id.* at 747 (Stewart, J., dissenting) (relying in part on the fact that "information obtained by pen register surveillance . . . emanates from *private conduct within a person's home* or office–locations that without question are entitled to Fourth . . . Amendment protection") (emphasis added).

[381] Payton v. New York, 445 U.S. 573, 590 (1980).

[382] The reference to technological "breaches" is by no means intended to endorse a requirement that a particular device must gain access to information about a home interior by somehow passing through the home's walls. The *Kyllo* Court correctly rejected the notion that technological tools do not trigger Fourth Amendment regulation unless they somehow physically pierce the exterior walls of a home. *See Kyllo*, 533 U.S. at 35 (observing that the Court had already rejected the notion that the technology had to in some sense pass through the walls of the home). A technological device can shrink the entitlement to privacy in the home by passively receiving information that passes outside the home but is imperceptible without either the sensory enhancements of the device or a physical intrusion into the home. *Id.* at 33-36.

[383] *See* Wilson v. Arkansas, 514 U.S. 927, 931 (1995) (observing that "the common law generally protected a man's house as 'his castle of defence and asylum'") (quoting 3 WILLIAM BLACKSTONE, COMMENTARIES *288); *Payton*, 445 U.S. at 596-97 (asserting that the common law's "zealous and frequent repetition of the adage that a 'man's house is his castle,' made it abundantly clear that both in England and in the Colonies, 'the freedom of one's house' was one of the most vital elements of English liberty") (footnote omitted); *see also* Ken Gormley, *One Hundred Years of Privacy*, 1992 WIS. L. REV. 1335, 1358-60; Robert J. Leibovich, Note, *Pri-*

b. *The Second Variation: The Harmful Impacts of Reverence for Home Privacy on Other Private Domains*

Like technology itself, the special reverence for home privacy can be a very sharp, two-edged sword. The fact that a technological device has posed a threat to home privacy has militated strongly in favor of constitutional protection against exploitation of that device. When the privacies jeopardized have been situated outside homes, the Court has been inclined to reject claims that technologically-aided surveillance crossed the Fourth Amendment threshold. For official conduct directed

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vacy Goes Camping: Staking a Claim on the Fourth Amendment, 26 U. MEM. L. REV. 293, 294-97 (1995).

[384] *See Kyllo*, 533 U.S. at 37 ("In the home . . . *all* details are intimate details.").

[385] In a recent reflection on the meaning and status of privacy in American society, Jeffrey Rosen contends that the shelter provided for home privacy has diminished over time. *See* Rosen, *supra* note 118, at 26-53. In his view, courts, including the Supreme Court, have permitted "legal protection for privacy at home . . . to atrophy over the past few decades." *Id.* at 52-53.

at locations outside the home, the Court has taken assertions of secrecy less seriously, has been less vigilant against technological threats and has been more willing to find the Fourth Amendment irrelevant. In my view, the primacy of home privacy has had corrosive impacts on entitlements to secrecy in other domains. A devotion to home privacy has led the Court to undervalue other confidentiality interests.

The tendency to discount informational privacy interests located outside dwellings seems misguided. If a domain harbors privacy interests entitled to protection against the physical intrusions known to our ancestors, those interests should also be shielded against technological surrogates. The fact that the privacy at stake may rank lower in the Fourth Amendment scheme than in-home privacy does not support and should not prompt a contrary conclusion. The paramount importance of home privacy does not mean that privacy interests in other areas are unimportant, unworthy or undeserving.[386] Our ancestors' special reverence for home privacy is consistent with respect for entitlements to keep our lives confidential in other domains–both domains they knew and those that would emerge over time.[387] The Constitution guards against unreasonable searches of locations other than residences, providing entitlements to maintain confidentiality when we venture into the world outside our homes.[388] There is no basis for concluding that the reach of the Fourth Amendment does not extend to technological threats to interests outside the home or that constitutional privacy entitlements are somehow less valuable when the risks are posed by means other than physical intrusion.[389]

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[386] As society has evolved and our lives have become more mobile, as we spend more and more of our waking hours away from home, there may be even more reason to prize our right to preserve secrecy outside dwellings and to be concerned with novel perils generated by scientific and technological progress. While privacy of the home is still highly valued, it is arguable that changes in the nature of our society have elevated the value of extra-home privacies.

[387] See *United States v. Chadwick*, 433 U.S. 1 (1977), for support of these arguments. Therein, the Court rejected the government's claim that the warrant rule governed only the especially significant privacy interests present in homes and private communications, holding that private repositories located in public places are also entitled to its protection. *Chadwick*, 433 U.S. at 7, 11. According to the Court, "the Framers were men who focused on the wrongs of that day but who intended the Fourth Amendment to safeguard fundamental values which would far outlast the specific abuses which gave it birth." *Id.* at 9.

[388] *Id.* at 7.

The aerial surveillance cases provide illustrations of the influence of the locational factor and of the dangerous tendency to devalue privacy interests outside dwellings. In both *California v. Ciraolo*[390] and *Florida v. Riley*,[391] the Court held that the observation of matters in residential curtilage from aircraft flying in lawful airspace did not violate reasonable expectations of privacy.[392] The holdings that no searches had occurred rested primarily on the homedwellers' knowing exposure of the facts to views from mechanisms in general public use.[393] The Court did not explicitly cite the nature of the locations at issue as bases for rejecting the threshold claim.[394] Nevertheless, there is reason to believe that the results in both cases were influenced to some extent by the fact that the information learned was situated outdoors in areas surrounding the homes rather than inside home interiors.

In *Ciraolo* and *Riley*, the authorities used technological advances to learn about otherwise imperceptible activities on residential property surrounding homes[395]–areas clearly entitled to Fourth Amendment protection.[396] The Court observed that the officers' conduct did not physically intrude into the areas,[397] did not interfere with use of the property,[398] and posed no risk of disclosing "intimate associations"[399] or other "intimate details connected with the use of the home or curtilage."[400] These same considerations would not have influenced the threshold inquiry if the details perceived by technological sense enhancements had been located inside dwellings.[401] They militated against Fourth Amendment protection *because* the area surveilled was exposed land outside homes.[402] The less private location targeted by technology provides at least a partial explanation for the Court's refusal to take seriously the very plausible contention that there was in fact no real "knowing exposure" because the flying public does not observe what happens in residential curtilage.[403] Technology afforded access, enabling the government to breach the confidentiality of information that it could not have learned in an earlier age. However, because it was not used to learn details about home interiors, the Court was less inclined to find that the constitutional threshold had been crossed. In sum, the locational factor influenced the majority's conclusion that naked eye aerial surveillance was not regulated by the Fourth Amendment.

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[389] These lessons, I believe, are reflected in the landmark holding in *Katz* that the privacy of conversations in public phone booths is entitled to protection against interception by technology that does not breach the physical integrity of the booth. Katz v. United States, 389 U.S. 347, 353 (1967). The negative impacts of devotion to home privacy result from a constrictive attitude toward Fourth Amendment values that stands in stark contrast to the expansive attitude of the *Katz* Court.

[390] 476 U.S. 207 (1986).

[391] 488 U.S. 445 (1989).

[392] *Ciraolo*, 476 U.S. at 213-14; *Riley*, 488 U.S. at 450.

[393] *See supra* notes 329-51 and accompanying text.

[394] *Ciraola*, 476 U.S. at 213-14; *Riley*, 488 U.S. at 449-50.

[395] *Ciraolo*, 476 U.S. at 209; *Riley*, 488 U.S. at 448. In *Riley*, the information learned was also located inside an outbuilding that was in a state of disrepair. *Id.*

[396] *See* Oliver v. United States, 466 U.S. 170, 180 (1984) (holding residential curtilage is entitled to Fourth Amendment protection).

[397] *Ciraolo*, 476 U.S. at 213.

[398] *Riley*, 488 U.S. at 452 (observing that there was no interference with nor-

One need not speculate about the powerful negative effects of the locational factor in *Dow Chemical Co. v. United States*.[404] Prominent among the array of reasons for concluding that photographic aerial surveillance was not a search was

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mal use and "no undue noise, and no wind, dust, or threat of injury").

[399] *Ciraolo*, 476 U.S. at 215 n.3.

[400] *Riley*, 488 U.S. at 452.

[401] *See* Kyllo v. United States, 533 U.S. 27, 34-35 (2001). For technological explorations of home interiors, the lack of penetration through the walls is irrelevant, *id.* at 35, and "*all* details are intimate details," *id.* at 37.

[402] *Ciraolo*, 476 U.S. at 213-14; *Riley*, 488 U.S. at 449-50. The Court did suggest, in *Oliver v. United States*, that the character of residential curtilage might support diminished standards of reasonableness. *See Oliver*, 466 U.S. at 180 n.11 (declining to decide whether curtilage is entitled to same degree of protection afforded homes and other highly private areas).

[403] Four dissenters believed that contention had merit. *See Ciraolo*, 476 U.S. at 223-24 (Powell, J., dissenting). For further discussion of this argument, see *supra* notes 360-63 and accompanying text.

[404] 476 U.S. 227 (1986). The overt reliance on the character of the location at issue in *Dow*, 476 U.S. at 239, provides an additional reason to believe that the factor was influential in *Ciraolo*, a companion case to *Dow*.

the "commercial curtilage" character of the area at issue.[405] While the *Dow* majority did not deny all Fourth Amendment protection for this domain, it refused to find that the privacy of the area had been violated by the combination of two technological enhancements (an airplane and a precise mapping camera) that together made it possible to perceive facts otherwise entirely inaccessible without physical trespass.[406] The conclusion that this technologically-enabled breach of secrecy was unregulated–despite the fact that it enabled the acquisition of information that could only have been accessed in an earlier day by a regulated physical intrusion–rested in large part on the relatively low ranking of the location involved. Because the land surrounding the manufacturing facility was a far cry from a home, and was even less deserving of protection than the land immediately surrounding a home, it was accorded *no* shelter against the enhanced perception afforded by aeronautical and photographic technologies.

The reasoning of the aerial surveillance decisions and their implications for threshold technology inquiries are questionable at best, dangerous at worst. If a location is entitled to constitutional shelter–*i.e.*, if it is a sphere in which Fourth Amendment interests in confidentiality are protected against physical or other intrusions—then technological surrogates for the regulated intrusions should also be governed. Advances in the capacity to perceive and acquire concealed facts about individuals' private lives should not be allowed to shrink entitlements to secrecy in these domains merely because the interests jeopardized are not as exalted as home privacy interests. The relatively lower rank of these interests in the Fourth Amendment hierarchy[407] is not a rational basis for refusing to guard against novel methods of breaching confidentiality.[408]

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[405] *Id.* at 239. The Court maligned the area as closer to open fields than to residential curtilage. *Id.* at 239.

[406] *Id.* at 238-39. The aircraft enabled the officers to occupy a new vantage point otherwise unavailable to flightless homo sapiens, and the camera was able to capture small details imperceptible to unaided human eyesight.

[407] The point in the text is that *even if* the location is one in which privacy interests are less deserving, that fact alone should not be relied upon as a basis for a negative threshold conclusion in cases involving technological sense enhancement. I do not concede that privacy interests in residential curtilage are markedly less deserving of shelter. Perhaps the fact that the residential curtilage is out-of-

In sum, the Court's reliance on the character of locations to restrict the reach of the Fourth Amendment in residential and commercial curtilage contexts is seriously flawed.[409]

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doors and exposed does diminish the worth of the confidentiality interests in that domain. It is far from certain, however, that the privacy interests in the areas surrounding homes merit considerably less respect than the interests inside homes. After all, the curtilage is the area into which the privacies of the home extend. *See* Oliver v. United States, 466 U.S. 170, 180 (1984). Moreover, residential curtilage furnishes important protection for home interiors by providing a "buffer zone" into which the authorities may not intrude without justification.

[408] It may provide a reason for demanding lesser showings of reasonableness than is the norm for technological and other invasions of home privacy. *See supra* note 298 and accompanying text. The fact that the diminished character of the privacy interests in a location can appropriately be factored into the Fourth Amendment balance when assessing the *reasonableness* of a search is an additional reason not to rely on the locational variable as a basis for outright denial of any protection.

This is not to suggest that the norm should be diminution of Fourth Amendment reasonableness demands based on the character of locations and privacy interests. We should be on guard against the too facile conclusion that because a privacy interest lies outside the home it merits only diminished Fourth Amendment protection. The presumption, not easily overcome, should be that "a search is a search" and that the full protection of the Fourth Amendment applies. *Cf.* Arizona v. Hicks, 480 U.S. 321, 325 (1987) (concluding that mere movement of a turntable inside a dwelling is a search that is reasonable only upon probable cause).

[409] In *United States v. Place*, 462 U.S. 696 (1983), in deciding that a dog sniff was not a search, the Court pointed out that the item examined was a piece of luggage situated "in a public place." *Id.* at 707. The implication was that the location rendered the luggage less deserving of protection. Moreover, in *City of Indianapolis v. Edmond*, 531 U.S. 32 (2000), the canine sniffs at issue were aimed at vehicles on public roads. *Id.* at 34-35. Vehicles, especially those in public places, are notorious for their diminished expectations of privacy. *See* Wyoming v. Houghton, 526 U.S. 295, 303-04 (1999); California v. Carney, 471 U.S. 386, 391-92 (1985); United States v. Chadwick, 433 U.S. 1, 12-13 (1977).

My analyses of the Court's reasoning in the curtilage cases is equally pertinent to other domains in which Fourth Amendment privacy interests exist but may be less valuable than home privacy interests. The relatively lower expectations of privacy in either publicly-located effects or in vehicles on the road should not be the basis for concluding that no search has occurred. Whenever a technological tool has been used to breach the confidentiality of information concealed by the effect or vehicle, the Fourth Amendment should be concerned. Effects, vehicles and other areas of our lives in which there are entitlements to keep information secret and concealed should be safeguarded against devices that make it possible to access, perceive and learn that information. The special value of

While the exalted character of home privacy should prompt sensitivity to technological surveillance of dwellings, there is no reason why special vigilance against technological and other threats to home privacy should yield a lack of or lesser vigilance when novel mechanisms afford access to other constitutionally-sheltered domains. If an area deserves some measure of Fourth Amendment protection, technological tools that enable the authorities to effectively violate confidentiality by perceiving facts that were previously perceptible only by regulated means cross the constitutional threshold. Fidelity to the Framers' objectives and respect for their values dictate this conclusion.

c. *The Third Variation: The Denial of Privacy in Public Places*

The final variation on the locational theme is the disinclination to find protected privacy interests in public places. The fact that technology is employed to acquire information *situated in a public place* militates strongly against and is likely to defeat a threshold technology claim. The decision and reason-

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home privacy should not prompt the neglect of other privacies essential to security and freedom.

The conclusion in *Katz v. United States* that conversations in telephone booths are protected against electronic eavesdropping is consistent with and supportive of my views. 389 U.S. 347, 359 (1967). The fact that Mr. Katz spoke outside his home and in full view of the public did not count against, much less defeat, his claim that a privacy-violating exploitation of technology had occurred. Because the government had used a sense-enhancing device to gain access to information that would otherwise have remained confidential (barring a regulated physical intrusion) the Court concluded that the government had searched within the meaning of the Fourth Amendment. *Katz*, 389 U.S. at 352.

In addition, the majority opinion in *United States v. Karo* intimated that if an electronic beeper were employed to access information about the contents of a rented locker in which an individual has a legitimate expectation of privacy, a Fourth Amendment search would occur. 468 U.S. 705, 720 n.6 (1984). In my view, this suggestion reflects a proper interpretation of the relationship between technology and the threshold of the Fourth Amendment. The privacy interests in rental lockers, though less significant than those within homes, are valued and worthy of constitutional protection. The confidentiality of details about our lives concealed in such repositories should be safeguarded not only against physical invasion, but also against technological surrogates for physical invasion.

ing in *United States v. Knotts*[410] illustrate the influence of the public place variable.[411]

In *Knotts*, official monitoring of a beeper attached to a can of chemicals was found not to be a search because individuals do not have legitimate expectations of privacy in movements on public thoroughfares and in other public locations.[412] While the logical basis for the holding that the exploitation of technology in *Knotts* was unconstrained was that members of the public could have seen all of the details learned with their naked eyes,[413] it seems fair to conclude that the Court was less willing to question that conclusion because of the location of the matters claimed to be secret.

At first glance, the influence accorded this particular locational variable seems eminently sensible. The location of information in a genuinely open, public place seems inconsistent with a legitimate expectation of privacy in that information. Truly public venues are not typically thought to be places in which individuals have or maintain secrecy interests. Because public domains are the antitheses of privacy, when individuals enter those domains they surrender entitlements to confidentiality they would otherwise possess.

In my view, this logic is unimpeachable when the details perceived and acquired by a novel technology are also capable of being perceived, and are perceived, by unaided human senses.[414] I have serious questions, however, about the application of this logic to situations in which sense-improving mechanisms enable the authorities to learn publicly-located matters that would have remained unknown in an earlier era. Undetectable tracking beepers enable officials to acquire comprehensive records of public travels with much lower risks of failure than those inherent in ordinary sense surveillance by fallible human beings.[415] Although the additional information that can be gathered is not physically or technically concealed, it might well remain secret and confidential from ordinary human senses. Sensitive listening devices can furnish abilities to listen to conversations in public places that unaided ears could not possibly access because the parties have lowered their voices and ensured that they are out of the range of potential eavesdroppers. These conversations are located in and gathered from a public place. Nonetheless, the information perceived by technological means would not have been perceptible by ordinary senses and could not have been learned by the government at all–not even by means of physical intrusion–at the time the Constitution was framed. Technological advances alone have brought it within reach, making new breaches of confidentiality possible.[416]

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[410] 460 U.S. 276 (1983).

[411] *Knotts*, 460 U.S. at 281-82. The reasoning in *United States v. Place*, 462 U.S. 696 (1983), also demonstrates the influence of the factor. In deeming a dog sniff of luggage not to be a search in that case, the Court stressed that the opinion was confined to luggage that was situated "in a public place." *Place*, 462 U.S. at 707.

[412] *Knotts*, 460 U.S. at 281. In contrast, when the beeper monitors activity inside a home–even the mere movements, presence or absence of an inanimate object–a search does occur. For a discussion of *United States v. Karo*, see *supra* notes 282-88, 291-92, 367-71 and accompanying text.

[413] *See supra* notes 207-12 and accompanying text.

[414] See *supra* notes 213-20 and accompanying text, for a more complete discussion of this question.

My point is simple. The location of information in a public place does not necessarily nullify confidentiality even if the information is not shielded by a physical barrier. Physical barriers to human senses are not always essential to preserve secrecy, and the absence of those barriers should not be dispositive in deciding whether novel devices threaten confidentiality. Privacy can exist "in plain sight" and has done so for centuries. A public setting is not inherently inconsistent with an interest in confidentiality. For these reasons, knee-jerk reliance on the public place factor to reject Fourth Amendment threshold claims is not justifiable. It is not implausible to contend that when the authorities use technology to access publicly-situated and physically-exposed details that otherwise would not or might not be perceptible to human faculties they violate privacy. If the exploitation of a device enables the government to learn details that could not or would not have been learned at all by means known to the Framers, not even by methods subject to constitutional regulation, categorical rejection of a privacy claim based on "public location" does not seem sensible. In cases where it is arguable that privacy interests do exist in public locales, I would not dismiss Fourth Amendment threshold claims out of hand based on the dubious assumption that privacy interests worthy of constitutional protection cannot exist in public domains.

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[415] See *supra* notes 218-19 and accompanying text, for a discussion of this premise.

[416] Instances in which technological tools can access information about public matters that are not physically enclosed but are inaccessible to ordinary human senses could undoubtedly be multiplied. For example, some items located in public places are too small or too distant to be seen by human eyes from lawful vantage points. Details about those items can be brought within range of perception by high-powered devices that dramatically improve human vision or by mechanisms that bestow "night vision," making it possible to see matters in public places that human eyes could not otherwise see because they are concealed by "cover of darkness."

It is far from clear how the Framers would have reacted to the situations hypothesized. When novel devices afford access to matters that previously could have been perceived only by physical intrusions into concededly private places, one can logically infer that the Framers would have subjected the technological alternatives to constitutional regulation. When mechanisms enable the authorities to uncover matters that could not have been learned by any means known to those who lived in the late eighteenth century, the same conclusion does not necessarily follow. The details learned by the new mechanisms remained private because it was not possible to perceive them. Because there was no means of gaining access, there was no need to contemplate or provide legal protection. As a consequence, we are left without insight into whether our ancestors valued the secrecy or confidentiality of the information that technology has brought within reach.

I am uncertain whether those who valued the privacy of information concealed behind physical barriers would have also valued the privacy of publicly-situated, but imperceptible information. If government agents had devised means of hearing remote, lowered voices or of seeing tiny details or matters hidden by darkness, would the Framers have cared about the confidentiality lost enough to subject those new methods to constitutional control? If those same agents suddenly had acquired superhuman tracking powers analogous to those provided by beepers and could make comprehensive and detailed records of public movements too complicated to be reliably documented by ordinary human trackers, would the Framers have cared about the secrecy lost enough to restrain those new powers?

While I have no ready answers to these difficult questions, I believe they are the sorts of inquiries that need to be pursued. When technology enables the authorities to learn "public" details of our lives that they previously could not have learned, when it renders us poorer from a privacy standpoint than we would have been in an earlier age, we should not deny constitutional protection without close, careful analysis of the ramifications. If the interests jeopardized by technological sense enhancements are sufficiently like those the Framers did value, constitutional regulation seems justifiable.[417] Simple reliance on public location alone is no substitute for the scrutiny essential to honor Fourth Amendment objectives.

In sum, the Supreme Court's threshold technology opinions have placed unwarranted reliance on locational variables.[418] The emphasis on the importance of home privacy has prompted vigilance against technological incursions on homes, but has cast an unfortunate shadow over other protected domains.[419] Moreover, the instinctive tendency to treat entitlements to privacy in public places as nonexistent permits technological ingenuity to imperil values that may well deserve constitutional protection. In *Katz*, Justice Stewart declared that "the correct solution of Fourth Amendment problems is not necessarily promoted by incantation of the phrase 'constitutionally protected area'"[420] and that "the Fourth Amendment protects people, not places."[421] I have always found these pithy declarations to be catchy, but not particularly instructive. I now believe that they capture important constitutional insights, reflecting an acknowledgment that we do have constitutional entitlements to confidentiality outside our homes, even in phone booths and other public places, and a recognition that the Fourth Amendment's reach should not be restricted based on the site of the privacy interest jeopardized by technology.[422] Put simply, the guarantee against unreasonable searches is concerned with technological encroachments upon the privacies of life both inside and outside our castles.

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[417] I am inclined to put the burden on those who believe that "public privacy" is entitled to no constitutional shelter to provide persuasive reasons why those who sought to preserve an entitlement to keep conversations, letters, and other details confidential inside homes, pockets, and other enclosures would not have cared at all about similar confidentiality interests once they are taken into public places.

[418] *See supra* notes 366-417 and accompanying text.

[419] *See supra* notes 367-85 and accompanying text.

[420] *Katz*, 389 U.S. at 347, 350.

[421] *Id.* at 351.

IV. REFLECTIONS UPON AND A PROPOSAL FOR DEFINING THE RELATIONSHIP BETWEEN TECHNOLOGY AND THE FOURTH AMENDMENT THRESHOLD

Having explored the complexities of the Supreme Court's threshold technology opinions and the understandings of the relationship between technology and the Fourth Amendment implicit in those opinions, it is time to reflect on a few aspects of the central question and to propose a general standard for deciding when technological exploitation ought to be governed by the Fourth Amendment. My aim throughout is fidelity to the aims of those who designed and adopted that provision. In my view, the objective should be to safeguard the interests our ancestors valued, giving force and effect to the balances they struck.[423] Our own biases or desires for greater privacy or security or our resentments of technological innovations and their impacts upon our lives should not be allowed to distort the boundaries of the Fourth Amendment by expanding that provision's reach. On the other hand, fears of or desires to tame particular threats to society–the drug epidemic or terrorism, for example–should not prompt us to contract the scope of Fourth Amendment protection by ignoring the real threats to freedom posed by novel surveillance mechanisms. My preference is to trust the wisdom of those who designed our Constitution.[424]

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[422] Justice Harlan agreed that the Fourth Amendment protects people, not places, but noted that determination of the protection afforded ordinarily requires reference to a place. *Id.* at 361 (Harlan, J., concurring). His meaning may have been that there are relevant threshold variables that are intimately related to the nature of the place involved. I do not dispute that position. To the extent, for example, that genuine knowing exposure results from behavior in a public setting, the claim that privacy has been violated is undermined. My criticism of the Court's analyses is directed at the tendency to rely on location alone to restrict the scope of constitutional shelter against technology.

[423] The goal should be "to preserve that degree of respect for the privacy of persons . . . that existed when the [Fourth Amendment] was adopted–even if a later, less virtuous age should become accustomed to considering all sorts of intrusion 'reasonable.'" Minnesota v. Dickerson, 508 U.S. 366, 380 (1993) (Scalia, J., concurring).

At the outset, this devotion to original values prompts me to take issue with a potential concession implicit in the *Kyllo* opinion. Justice Scalia asserted that the overarching "question . . . is what limits there are upon th[e] power of technology to shrink the realm of guaranteed privacy."[425] If his intent was to concede that the mere development of technological tools *should* be allowed to diminish Fourth Amendment freedoms, then I respectfully disagree. I see no reason why our cleverness and creativity in increasing human abilities should lead to any constriction of fundamental values. Perhaps Justice Scalia did not mean to suggest that the law should allow technology itself to shrink the scope of Fourth Amendment privacy. He may have meant to express the less troubling idea that no matter how hard we try to safeguard Fourth Amendment privacy, technology will inevitably have some corrosive impacts. I might well agree with that assessment of reality. It is also possible that Justice Scalia merely meant to acknowledge that the current law has tolerated a certain amount of technologically-induced shrinkage. That conclusion seems beyond dispute.[426] Justice Scalia's meaning may have been even more complex. He might have meant that there are situations in which not simply the fact that technology exists, but that fact coupled with other circumstances, justify some diminution of the privacy that would have found shelter in an earlier age. I do not rule out that possibility.

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[424] Adherence to the values and objectives of the Framers can be an elusive goal. In many ways, the world we inhabit and the society we know would have been alien to those who lived more than two centuries ago. Technological developments of the past two centuries, both simple and elaborate, could scarcely have been the subjects of their dreams. It can be difficult to determine how they would have resolved questions that confront us today. Nevertheless, we should make every effort to seek guidance in their aspirations and goals and should be prepared to confess uncertainty when it is the result of our effort.

[425] Kyllo v. United States, 533 U.S. 27, 34 (2001).

[426] *See* ROSEN, *supra* note 118, at 25 ("It is surprising how recently changes in

My sole dispute is with the suggestion that the development of mechanisms that enhance perceptual, sensory and other faculties requires the surrender of any of the legal protection for privacy that the Bill of Rights was designed to provide.[427] Technological increases in human abilities to breach confidentiality are an insufficient reason to compromise the effort to preserve original values. I find it inconceivable that the Framers would have expected (or desired) scientific or technological circumvention of fundamental protections. Consequently, I would respond to the question highlighted by Justice Scalia in simple, straightforward terms: Science and technology have *no* inherent power to shrink the domain of privacy guaranteed by the Constitution. We should be vigilant against that danger and determined to interpret the law in ways that prevent it from happening.

That conclusion leads me to another basic, still quite general, assumption about the relationship between innovative devices and the Fourth Amendment threshold. In my view, the guarantee against unreasonable searches and seizures should constrain every official use of technology that threatens injury to the interests underlying that guarantee. Exploitations of scientific and technological tools should be regulated when they jeopardize the vitality of the liberties the Fourth Amendment is designed to shelter. Technological threats to the core constitutional interest in informational privacy should be of particular concern.[428]

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law and technology have been permitted to undermine the sanctuaries of privacy that Americans took for granted throughout most of our history.").

[427] *See* ROSEN, *supra* note 118, at 25 ("There is nothing inevitable about the erosion of privacy, just as there is nothing inevitable about its reconstruction. We have the ability to rebuild private spaces we have lost. But do we have the will?").

[428] This assumption is far from remarkable and hardly novel. It underlies the conclusion in *United States v. Karo*, 468 U.S. 705 (1984), that monitoring a beep-

To determine whether Fourth Amendment values are jeopardized, a useful initial step is an evaluation of the character of the augmentation of human capacities made possible by a particular mechanism. Devices that enhance ordinary human sensory faculties in ways that render information about people's lives more accessible should presumptively be objects of Fourth Amendment concern. Because innovations within this category have the power to breach legitimate interests in secrecy, they threaten entitlements to informational privacy that the Framers valued. The mere fact that a device is *capable of* intruding upon Fourth Amendment interests should not, however, be enough to trigger the application of that guarantee. The determinative question should be whether officials have *actually employed* the mechanism in ways that threaten genuine interests in confidentiality.

Based on these premises and the lessons learned from the threshold technology precedents, I have arrived at the following proposal: Official exploitation of a scientific or technological device should be considered a Fourth Amendment search at least when the effect is to enhance, augment or supplement human sensory abilities or other capacities in ways that have made it possible for the authorities to gain access to any information that otherwise would have been, or is highly likely to have been, imperceptible or inaccessible or would only have been, or is highly likely only to have been, perceived or acquired by means that are governed by the Fourth Amendment.[429] Several facets of this standard merit comment and

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er inside a residence constitutes a search because, from a privacy standpoint, it is an effective surrogate for official presence within the home. *Karo*, 468 U.S. at 719. Similarly, the *Kyllo* Court's conclusion that thermal imaging of a residence is a search because it reveals confidential information about the interior seems rooted in an assumption that technology must be regulated when it jeopardizes the values sheltered by the Fourth Amendment. These two decisions do reflect an understanding of the relationship between technology and the reach of the Fourth Amendment similar to the one I proffer. I am not sure, however, that the Supreme Court would subscribe to my expansive statement of the underlying premise. The opinions in *Karo* and *Kyllo* are clearly limited to invasions of home interior privacy. *See supra* notes 168-73, 196-201 and accompanying text.

[429] The proposed standard certainly bears similarities to the narrower standard adopted by the *Kyllo* Court for technological invasions of home privacy. *See Kyllo*, 533 U.S. at 34 ("We think that obtaining by sense-enhancing technology any in-

explanation.

The proposed standard rests squarely on the premise about Fourth Amendment purposes and values endorsed in *Katz* and reinforced in subsequent opinions–*i.e.*, that the goal of the Framers was to preserve an interest in privacy.[430] More specifically, it accepts the conclusion that the Framers were primarily concerned with informational privacy–*i.e.*, with safeguarding the entitlement to keep matters about our lives secret from the government.[431] This seems to me a plausible

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formation regarding the interior of the home that could not otherwise have been obtained without physical 'intrusion into a constitutionally protected area,' constitutes a search–at least where . . . the technology in question is not in general public use.") (citation omitted); *id.* at 40 ("Where . . . the Government uses a device that is not in general public use, to explore details of the home that would previously have been unknowable without physical intrusion, the surveillance is a 'search' and is presumptively unreasonable without a warrant."). There is reason to believe that the Court's doctrine may have been inspired by the suggestion made in the *amicus curiae* brief I prepared in *Kyllo*. *See* Brief Amicus Curiae of the National Association of Criminal Defense Lawyers and the American Civil Liberties Union at 27, Kyllo v. United States, 533 U.S. 27 (2001) (No. 99-8508) ("At a minimum, the Fourth Amendment is implicated whenever a device enables officials to breach protected interests in secrecy and confidentiality by learning concealed information that previously could have been learned only by means of physical entry into a home or other enclosed space."); *id.* at 5-6 ("At a minimum, a technological advance that is an effective substitute for physical intrusion and poses the same threats to privacy should be governed by the Fourth Amendment. A new device must be constrained by the Constitution whenever it enables officials to learn any confidential information that previously could have been learned only by . . . physical intrusion."). The standards proposed in the brief and here are both broader than that adopted by the Court insofar as neither is restricted to home interior contexts. In addition, the *Kyllo* brief argued that "[a]t a minimum" the Fourth Amendment should govern the situations described by the standard proposed, and the standard put forward in this article calls for constitutional control "at least" in the situations it encompasses. Neither is intended as an *exclusive* threshold test. Both contemplate the possibility of additional situations in which government conduct may qualify as searches if Fourth Amendment values are threatened. It is arguable that the *Kyllo* standard itself is not an exclusive threshold standard for home interior contexts–*i.e.*, that conduct not satisfying the majority's standard could still qualify as a Fourth Amendment search.

[430] *See* Rakas v. Illinois, 439 U.S. 128, 160 (1978) (White, J., dissenting) (asserting that the "primary object of the Fourth Amendment" safeguard against unreasonable *searches* "[is] . . . the protection of privacy" (quoting Cardwell v. Lewis, 417 U.S. 583, 589 (1974) (plurality opinion) (alteration in original)).

[431] *See* Tomkovicz, *supra* note 19, at 665-66. This is not to say that the guarantee against unreasonable searches protects *only* confidentiality interests. I have already noted that there may be other "privacy" interests–such as the interest in

understanding of the ambitions behind constraining physical intrusions into homes and other domains.[432]

In addition, while I believe that the reasonable expectation of privacy doctrine has many flaws, deficiencies and inadequacies,[433] the proposed standard can coexist peacefully with that doctrine. It is not a rival or competitor, but a supplement, *i.e.*, an effort to furnish more specific guidance for the resolution of issues raised by technological developments.

Next, the proposal provides for the regulation of devices that heighten perceptive abilities (*e.g.*, listening devices) as well as those that make ordinary human perceptive abilities more effective (*e.g.*, airplanes). In terms of jeopardy to secrecy, I see no difference between keener senses and improved vantage points for normal senses. Both sorts of enhancement can increase access to otherwise inaccessible information about our lives.

It merits mention that the proposed formulation contains no limitation based on the character of the location or area targeted. Homes are not singled out for special protection. Other concealed spaces receive constitutional shelter. Even public locales are candidates for coverage. Location *alone* does not factor into the analysis.[434]

Unlike the current doctrine, the standard contains no restriction based on the content of the confidential details rendered accessible. Before the advent of technologies capable

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the integrity and dignity of one's person and the interest in quiet repose–that were the objects of Fourth Amendment protection. The proposal in this article focuses on the protection of the core interest in informational privacy. In recognition of the possibility that other interests merit Fourth Amendment protection, the proposal specifies that technological exploitation qualifies as a search *at least* in the circumstances described. Fourth Amendment application in additional, appropriate situations is not precluded.

[432] Over eighty years before the *Katz* revolution, in its first significant Fourth Amendment threshold decision, the Court recognized "the privacies of life" as an object of that provision's protective scheme. *See* Boyd v. United States, 116 U.S. 616, 630 (1886).

[433] See Tomkovicz, *supra* note 19, at 678-90, for criticisms of the reasonable expectation of privacy doctrine.

[434] That is not to say that location is irrelevant. The site of a particular activity or object that is the target of technological surveillance may well affect whether the information acquired is otherwise accessible by unregulated human senses.

of discerning only confidential facts that might be deemed insignificant or illegitimate, those facts were protected by the Fourth Amendment. I have seen no evidence that the Framers meant to exclude such information from the shelter provided by that guarantee.[435] While I would incorporate an appropriate limitation if persuasive evidence were forthcoming, at present I would not suspend the protection that existed at the time the Constitution was adopted.

Perhaps one of the more significant features is the proposal's regulation of devices in two distinguishable instances. Technological developments are brought under Fourth Amendment control when the information they render accessible would only have been accessible by means that would clearly have triggered Fourth Amendment scrutiny–*i.e.*, when the technology is a substitute for a physical intrusion or any other constitutionally-regulated action.[436] My proposal also calls for the regulation of devices that make it possible for the government to learn information that it could not have learned at all–*i.e.*, information that would have remained confidential, but is now capable of revelation and acquisition by technological means. The use of sensitive microphones to overhear whispered conversations in public places illustrates the latter situation. Prior to the development of electronic eavesdropping technology, such conversations could not have been learned at all. Human limitations rendered their content inaccessible, thus confidential.[437] I have concluded that such privacies–those that could not have been breached at all–are sufficiently like those enclosed by breachable physical barriers to deserve protection.

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[435] For discussion and analysis of this issue, see *supra* notes 261-81 and accompanying text.

[436] The holdings in *Katz*, *Karo* and *Kyllo* all fall within this category, I believe. In all three cases, the Court found that official uses of technological devices had crossed the threshold because the technologies afforded access to information that could otherwise have been obtained only by conduct that would have triggered Fourth Amendment control–*i.e.*, by physical intrusions into homes or a telephone booth. *See supra* notes 98-114, 168-73, 196-201 and accompanying text.

[437] For a discussion of how the use of electronic tracking beepers to monitor public travels arguably enables officials to learn information that otherwise would be inaccessible to human faculties, see *supra* notes 218-19 and accompanying text.

Situations in which there is a risk of perception of matters by unregulated, unaided human senses raise an extremely difficult issue: Should technological devices be free of constitutional control whenever there is *some chance* that the matters perceived *could* also have been perceived by using ordinary senses and abilities in ways that would not trigger Fourth Amendment regulation. I have opted for a standard that includes not only situations where it is certain that matters would be inaccessible to unregulated ordinary senses but also situations in which it is "highly likely" that information would have been imperceptible by constitutionally unregulated means. My choice is based on the premise that the Framers would not have found a forfeiture or surrender of all interests in confidentiality in every situation where there is *any risk* that unregulated human perception could gain access to information. It rests on the conclusion that there is constitutionally cognizable damage to privacy when technological sense enhancements dramatically increase the government's opportunities to learn information that ordinary human abilities would have a very small possibility of learning. If the risk of acquisition by unregulated means is sufficiently small, mechanisms that make acquisition certain or probable seem to pose genuine danger to interests in confidentiality. This conclusion requires prescription of the degree of risk of ordinary sense perception that is too small to support a loss of privacy protection against technological means. For the time being, I have incorporated the relatively imprecise phrase "highly likely." According to the proposal, when it is "highly likely" that the matters perceived would not be accessible to unregulated human perception, the chance of ordinary perception is not large enough to permit technology to go uncontrolled.[438]

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[438] I admit that there is considerable ambiguity in the phrase "highly likely." Those terms do not identify the level of likelihood with any precision. Consequently, the magnitude of the chance of ordinary perception that occasions a forfeiture of protection against technological means is uncertain. As is often the case with legal standards that address questions of risk, greater specificity and precision in this area do not seem possible. Ultimately, we must trust judges to apply general standards to the best of their abilities. I have no particular attachment to the phrase "highly likely" and would be pleased if a better alternative

The proposal is intended to address situations where ordinary senses undoubtedly *could* gain access to the information learned by technological means, but generally are not used by the public to gain such access. It is designed to regulate technology in those situations *only if* the use of ordinary senses to perceive the information would be constitutionally regulated. The proposed standard dictates this result by *not* including uses of technology when it is certain or there is a sizeable risk that the information acquired by the mechanism would have been perceptible or accessible by means *not governed* by the Fourth Amendment. Thus, in deciding whether technology crosses the Fourth Amendment threshold, the critical question is whether the employment of ordinary human faculties would be subject to constitutional control.[439]

Finally, the proposed standard does not include an exception for mechanisms "in general public use." I remain ambivalent about the merits of such an exception. For those persuaded by the arguments in favor of the exception,[440] something along the following lines could be appended to the end of the

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were offered.

[439] The investigatory conduct addressed in *Bond v. United States*, 529 U.S. 334 (2000)–the use of the sense of touch to ascertain the configuration of the contents of a soft-sided bag–provides a useful illustration. *Bond*, 529 U.S. at 336. According to the *Bond* Court, whether the use of touch in this way is controlled by the Fourth Amendment depends upon the extent and manner of use. *Id.* at 338-39. Official employment of the sense of touch is subject to Fourth Amendment control *if* the tactile manipulation performed exceeds that ordinarily engaged in by members of the public. Under the proposed standard, a technological tool that could discern the shape of contents would constitute a search if the tactile manipulation necessary to learn the same information would be intrusive enough to trigger Fourth Amendment control, but not if the use of touch to access the same details would be unconstrained.

Beeper-aided tracking provides another example. Suppose that the public *could* use ordinary senses and abilities to track all public movements on a journey, but does not generally use unaided faculties to monitor others' movements. The use of an electronic beeper to monitor those movements will be constitutionally regulated *if* the use of unenhanced faculties to track the same movements would be regulated. If the use of ordinary senses and abilities would not be controlled and technology provides access to no more than what those senses could access–technology will not be regulated.

[440] For a discussion of this issue, see *supra* notes 324-66 and accompanying text.

proposal: "Exploitation of a device is not a search, however, when the device at issue has been widely used by members of the public to enhance perception and acquire information under circumstances that demonstrate societal acceptance of the resulting losses of privacy." As the earlier discussion of the merits of the current "in general public use" exception suggests, such an exception could be defensible *only* if a device has actually been generally used by the public to perceive the information accessed by technological means, if society has had time and opportunity to react to the perils from widespread public use, and if society has evinced a lack of concern with the fact that matters that were once confidential and inaccessible are now being learned by fellow citizens. Only in the undoubtedly rare situations where these criteria are satisfied would it make constitutional sense to invoke an "in general public use" exception. Consequently, language used to capture such an exception must be carefully phrased to encompass only those rare situations.

At the outset of this project, I was optimistic that I might arrive at a clear, simple, manageable standard for resolving threshold technology questions. The standard I have proposed is somewhat opaque, fairly complex and potentially unwieldy. While not desirable, these characteristics have been necessitated by the intricacies and subtleties of the issues that arise when addressing the relationship between technology and the threshold of the Fourth Amendment. While a simpler standard might be superficially appealing, it could not perform the heavy lifting required. One alternative might have been to abandon the quest for a governing doctrinal standard as an unproductive exercise in futility. I continue to believe, however, that the effort to provide general, consistent guidance is a worthy endeavor. My proposal undoubtedly has flaws, deficiencies, and ample room for improvement. I offer it as a first step toward a more principled regime for resolving threshold technology issues and invite others to assist in its development and refinement.

V. CONCLUSION

For a number of reasons, discernment of the relationship between technology and the threshold of the Fourth Amendment is an exceedingly difficult undertaking. The novel, sometimes ingenious, devices that give rise to constitutional questions were unknown to and unanticipated by those who drafted the Constitution. The conduct these mechanisms make possible often bears little or no ostensible resemblance to the physical intrusions that troubled our ancestors. Nonetheless, the dramatic increases in human capacities they afford can threaten the very same privacy interests that are violated by physical intrusions. Moreover, technological tools sometimes pose novel threats to privacy by enabling officials to gain access to potentially confidential information that was wholly unreachable in an earlier age. Official exploitations of technology challenge us to make difficult distinctions between tools that imperil Fourth Amendment values–those that cloak "old grievance[s]" in "insidious disguises"[441]—and tools that do not implicate the protections of that guarantee. The objective of this article has been to furnish a principled basis for making these critical distinctions.

The Supreme Court's holdings in threshold technology cases have sometimes been rooted in logically defensible premises that can promote principled decisionmaking. On other occasions, however, they have been based on unsupported and questionable assumptions. The most glaring deficiencies in the Court's opinions have been failures to examine and respond to the subtle, unique and important questions raised by technological enhancements of human potential. Too often, the Court has remained on the surface, ignoring the troublesome intricacies that lie beneath. The analyses and suggestions in this article have been intended to expose the neglected complexities and to prompt the sorts of in-depth analyses necessary for constitutionally legitimate resolutions. While the answers provided here may not be correct, the often unaddressed questions that have been highlighted are significant.

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[441] Boyd v. United States, 116 U.S. 616, 630 (1886).

In the years to come, as in years past, technology, terrorism and other powerful forces will bring pressure to bend constitutional rules and restrict fundamental freedoms. These forces have the power to shred the fabric of the Fourth Amendment. The inquiries pursued in this article and in this groundbreaking symposium can yield answers that are faithful to our constitutional heritage and can lead to solutions that will help preserve the delicate, enviable balance between security and freedom that is the very essence of our nation.

A FOURTH AMENDMENT "SEARCH" IN THE AGE OF TECHNOLOGY: POSTMODERN PERSPECTIVES

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The United States Supreme Court's search and seizure decisions have for decades prompted scholars to complain about the Court's Fourth Amendment[1] interpretive "mess."[2]

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[1] U.S. CONST. amend. IV. The text of the Fourth Amendment provides that

These scholars have railed against the Court's inconsistent approaches in deciding the constitutionality of investigatory practices. Undoubtedly, the Court's decisions during the next decade will continue to contain these multiple, conflicting interpretive paths when applying the Fourth Amendment to governmental officials' use of technology during investigations. We can, however, stop chiding the Court for its unpredictability by embracing postmodern perspectives,[3]

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effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized." *Id.*

[2] Ronald B. Dworkin, *Fact Style Adjudication and the Fourth Amendment: The Limits of Lawyering*, 48 IND. L.J. 329, 329 (1973). Professor David Sklansky in 1997 wrote of the "old mess" and the "new consensus" on the Court. David A. Sklansky, *Traffic Stops, Minority Motorists, and the Future of the Fourth Amendment,* 1997 SUP. CT. REV. 271, 291-92. He summarized well the scholarly critique:

> Complaints about the disarray of Fourth Amendment law have long been a staple of legal scholarship. It has not been thirty-five years since Roger Dworkin first called Fourth Amendment cases "a mess" and Anthony Amsterdam said this was an understatement. Nearly two decades ago, Silas Wasserstrom and Louis Michael Seidman found "virtual unanimity" that "the Court simply had made a mess of search and seizure law." More recently, Akhil Amar has described Fourth Amendment law as "jumble[d]," "contradictory," and–of course–a "mess." As Morgan Cloud has noted, "[c]ritics of the Supreme Court's contemporary Fourth Amendment jurisprudence regularly complain that the Court's decisions are," among other things, "illogical, inconsistent, . . . and theoretically incoherent."

Id. at 291-92 (citations omitted); *see also* Erik Luna, *Sovereignty and Suspicion,* 48 DUKE L.J. 787, 787-88, 801 (1999) (referring to the Fourth Amendment "mess" and stating that "each doctrine is more duct tape on the Amendment's frame and a step closer to the junkyard"); David E. Steinberg, *The Drive Toward Warrantless Auto Searches: Suggestions from a Back Seat Driver,* 80 B.U. L. REV. 545, 571 (2000) (citing a metaphor related to "mess"– the proverbial "tarbaby"). According to Professor Craig M. Bradley, the Fourth Amendment is "the Supreme Court's tarbaby: a mass of contradictions and obscurities that has ensnared the 'Brethren' in such a way that every effort to extract themselves only finds them more profoundly stuck." *Id.* (quoting Craig M. Bradley, *Two Models of the Fourth Amendment*, 83 MICH. L. REV. 1468, 1468 (1985)).

[3] For a discussion of postmodernism, *see infra* text accompanying notes 4-5, 8-12, 17-20, 23, 35-46, and 62-112. *But see* Robert Weisberg, *Criminal Law, Criminology, and the Small World of Legal Scholars,* 63 U. COLO. L. REV. 521, 522 (1992) (stating that criminal-law scholarship "has not yet earned the right to subject itself to postmodern critiques because it has not yet fully passed into or through the modern phase").

which help us understand why the Court has no constant guiding principle or principles. Postmodernists would expect multiple, conflicting constructions of the Fourth Amendment because "interpretation" is merely a community construct.[4] Because multiple communities compose our society[5] (with scholars[6] and the justices on the Court as examples of

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[4] *See, e.g.*, DOUGLAS E. LITOWITZ, POSTMODERNISM PHILOSOPHY AND LAW 11 (1997) (stating the postmodernists "argue that reason is not a uniform faculty in all humankind but rather socially constructed; it is always situated within existing practices and discourses, and it will therefore be biased or slanted in favor of existing power relations"); J.M. Balkin, *What Is a Postmodern Constitutionalism?*, 90 MICH. L. REV. 1966, 1972 (1992) [hereinafter Balkin, *Postmodern Constitutionalism*] (stating that postmodern philosophy "view[s] knowledge as an activity infused with social interaction and power rather than merely a set of articulable propositions or truths"). Professor Angela Harris's definition of postmodernism also rejected the notion of objective truth:

> [Postmodernism] suggest[s] that what has been presented in our social-political and our intellectual traditions as knowledge, truth, objectivity, and reason are actually merely the effects of a particular form of social power, the victory of a particular way of representing the world that then presents itself as beyond mere interpretation, as truth itself.

Angela P. Harris, *Foreward: The Jurisprudence of Reconstruction*, 82 CAL. L. REV. 741, 748 (1994) (quoting Gary Peller, *Reason and the Mob: The Politics of Representation,* 2 TIKKUN 28, 30 (July/Aug. 1987)); *see also* Scott L. Cummings & Ingrid V. Eagly, *A Critical Reflection on Law and Organizing*, 48 UCLA L. REV. 443, 452 (2001) (describing the Critical Legal Studies (CLS) movement, which began in the late 1970s, as having as its "project" the revelation of "power hierarchies embedded in liberal individual rights"; describing CLS writings as "showing the indeterminacy of legal rules and the inherently political choices of underlying the current legal order"); Maxine Eichner, *On Postmodern Feminist Legal Theory*, 36 HARV. C.R.-C.L. L. REV. 1, 1 n.1 (2001) (using to postmodernism "to designate the shift in theory from an approach that focuses on the search for reality to an approach that focuses on culturally constructed social meanings"). *See generally* J.M. BALKIN, CULTURAL SOFTWARE: A THEORY OF IDEOLOGY 7-14 (1998) (describing how the time in which we live shapes our lives and perspectives). *But see* J. Gregory Sidak, *Mr. Justice Nemo's* Social Statics, 79 TEX. L. REV. 737, 739 (2001) (advocating that society should view law as an "evolutionary institution," one seeking "objective knowledge"; under this view of law, "law's legitimacy arises from objective knowledge that the particular legal rule at issue is superior to all other known means of ordering a specific kind of relationship or transaction"). Mr. Sidak also has criticized the Court and scholars for constructing doctrines and theories that are "inherently nonfalsifiable." (stating that "[N]onfalsifiable rationales for constitutional decisions tend to increase the size of the state, which derivatively increases the power and prestige of the Supreme Court, the lower courts, and legal clerisy in which law professors rank highly.").

[5] *See, e.g.*, J.M. Balkin, *The Constitution of Status*, 106 YALE L.J. 2313, 2321-22 (1997) (describing American society as containing multiple "status groups,"

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which may arise because of "common styles of life and common senses of honor, prestige, or moral rectitude" or because of "religious and ethnic identities); Charles W. Collier, *Law As Interpretation,* 76 CHI.-KENT L. REV. 779, 817-23 (2000) (distinguishing between a community, which shares particular values, and society, which has diverse, divergent values).

[6] Legal academic scholars represent numerous contrasting communities. For example, Professors Daniel A. Farber and Suzanna Sherry, who have described themselves as centrists and pragmatists, wrote a book vehemently attacking another academic community, one they labeled "radical multiculturalists" and paranoid "extremists." DANIEL A. FARBER & SUZANNA SHERRY, BEYOND ALL REASON: THE RADICAL ASSAULT ON TRUTH IN AMERICA 9, 11, 133 (1997) (characterizing their own arguments as "harsh," but necessary because radical multiculturalism has "serious, profound, and dangerous flaws"). Their vitriolic book triggered academic salvos from other scholarly communities. *See, e.g.,* Kathryn Abrams, *How to Have a Culture War,* 65 U. CHI. L. REV. 1091, 1092, 1126 (1998) (arguing that Farber and Sherry heightened the "legal culture wars" and that their "flawed and inflammatory critique moves us in precisely the wrong direction"); John O. Calmore, *Random Notes of an Integration Warrior: A Critical Response to the Hegemonic "Truth" of Daniel Farber and Suzzana Sherry,* 83 MINN. L. REV. 1589, 1590, 1609 (1999) (arguing that Farber and Sherry's "truth" "operates to deny humanity to . . . people of color in the United States" and their book is "an expression of cultural racism"); Anne M. Couglin, *C'est Moi,* 83 MINN. L. REV. 1589, 1621, 1622 (1999) (noting the hostile tone of the book and faulting the authors, "at least some of the time, for claiming that the political is the truth"); Jerome McCristal Culp, Jr., *To the Bone: Race and White Privilege,* 83 MINN. L. REV. 1637, 1640 (1999) (describing the book as a "diatribe" against critical race theorists"); Nancy Levit, *Critical of Race Theory: Race, Reason, Merit, and Civility,* 87 GEO. L.J. 795, 808 (1999) (rejecting Farber and Sherry's view that radical multiculturalists have implicitly attacked tenured Jewish lawyers and professors, but stating that "[i]t is curious that two Jewish scholars understand what is means to be a member of a minority ethnicity when it is *their* ethnicity under attack–or perceived attack," and adding "that is the whole point of perspectivism"); Francis J. Mootz, III, *Between Truth and Provocation: Reclaiming Reason in American Legal Scholarship,* 10 YALE J. L. & HUMAN. 605, 606 (1998) ("By equating 'reason' with 'truth,' Farber and Sherry make a diagnostic error that one might expect from the country doctors who embrace right-wing legal ideologies but which is unforgivable for such talented and level-headed practitioners"); Edward J. Rubin, *Jews, Truth, and Critical Race Theory,* 93 NW. U. L. REV. 525, 527 (1999) (rejecting their view that critical race theory casts aspersions at Jewish scholars, but describing their anti-Semitic argument as a "brilliant rhetorical move"). Some scholars, who would want to be called "traditionalists," have condemned the innovative scholarship styles and explorations of other scholars as reflecting the "Law Political Correctness (LPC) ideology." *See* Arthur Austin, *The Top Ten Politically Correct Law Review Articles,* 27 FLA. ST. U. L. REV. 233, 235, 237-76 (1999) (denigrating authors in the following order: Mary Jo Frug (number one pick for LPC), Patricia Williams, Madeline Morris, Duncan Kennedy and Peter Gabel, Derrick Bell, Richard

numerous, contrasting communities),[7] we should anticipate different constructions of the Fourth Amendment.

Even though postmodern philosophy rejects the idea of an objective grand, unifying theory,[8] the loss of an objective constitutional interpretation should not dishearten us or make us fear that nihilism is right around the corner,[9] ready to grab and rob us of vitality as members of the legal community

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Delgado, Anthony D'Amato, Marie Ashe, Robin West, and Paul Butler); *see also* ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 7 (1991) ("exagerat[ing] only a little, the law-and-economics scholars believe that the law-and-society group is deficient in both sophistication and rigor, and the law-and-society scholars believe that the law-and-economics theorists are not only out of touch with reality but also short on humanity").

[7] *See, e.g.*, Jack M. Balkin, Bush v. Gore *and the Boundary Between Law and Politics*, 110 YALE L. J. 1407, 1442-43 (2001). In analyzing the *Bush v. Gore*, 121 S. Ct. 525 (2000), Professor Balkin has described the Court's merging of politics and decisionmaking:

> [It] was the conservatives who were making the equal protection argument and extending the Warren Court precedents; it was the liberals who were urging deference to the states' legal processes . . . . The conservatives used whatever arguments were available to promote George W. Bush's election, while the liberals offered the arguments that would have helped Al Gore. This is a more overt collapse of the boundary between law and politics than Critical Legal Studies would normally predict, although it is perhaps consistent with cruder forms of legal realism.

Id. In addition, Professor Balkin has noted that an argument that seems "loony" may become "positively thinkable" depending upon the status of the person making the argument. *Id.* at 1444 (noting law relies heavily on "institutional authority").

[8] *See infra* text accompanying notes 62-92.

[9] *See, e.g.*, Joseph William Singer, *The Player and the Cards: Nihilism and Legal Theory*, 94 YALE L.J. 1, 8-9 (1984):

> [T]he absence of determinacy, objectivity, and neutrality does not condemn us to indifference or arbitrariness, nor make it ridiculous to ask, or impossible to answer, the question of what we should do or how we should live. The lack of a rational foundation to legal reasoning does not prevent us from developing passionate moral and political commitments. On the contrary, it liberates us to embrace them.

Id.; *see also* SANFORD LEVINSON, CONSTITUTIONAL FAITH 157-62 (1988). Professor Levinson has described how Dean Paul Carrington of Duke Law School had argued that legal nihilists "have an ethical duty to choose a career other than teaching law." *Id.* at 157. Levinson responded with a question: "Does socializing the young, including fledgling lawyers, into the central tenet of the faith–defined by Lincoln as 'reverence for the law'–allow toleration within the schoolhouse of the 'civil atheist'?" *Id.* at 162.

and communities within society.[10] Instead postmodernism perspectives allow us to see the "'language games' that arise with respect to different spheres of social life, each incomplete and constantly subject to alteration and development."[11] By examining the language games the Court has used to construct what constitutes a Fourth Amendment "search," we are better able see the numerous roads from which the Court could have selected.[12]

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[10] *See, e.g.*, Mootz, *supra* note 6, at 638, 640 (describing that a "plurality of discourses yields perspective and clarity," not "relativistic chaos of incommensurate group identities").

[11] Balkin, *Postmodern Constitutionalism*, *see supra* note 4, at 1972; *see also* GUYORA BINDER & ROBERT WEISBERG, LITERARY CRITICISMS OF LAW 122 (2000). Professors Guyora Binder and Robert Weisberg noted that philosopher Ludwig Wittgenstein used the term "language games" to describe the uncertainty of meaning in words, in contrast to Fernand de Saussure, who viewed language as a "sign system" with "a discrete body of rules," which functioned in a system with "a definite boundary." *Id.* They described Wittgenstein's view of language and meaning:

> Since meaning is use in his [Wittgenstein's] pragmatist scheme, understanding a sign means competence in using it as discourse. Such discourses do not have hard boundaries–the range of moves that may be recognized as going on with a linguistic practice, as "within rules," cannot be exhaustively specified in advance and is contingent on the responses of other participants in the game. There is no common feature, for example, that all correct uses of a word must have. Correct uses are unified only by a "family resemblance," a set of "overlapping" characteristics not specifiable in advance.

Id. at 122-23. Professor Dennis Patterson has also used the term "language-game" to describe discourse in postmodernism:

> [T]he question "is this law valid?" has no point for the "knowledge" required to answer the question is a knowledge that can never exist. In postmodernity, legitimation of first-order discourses (e.g. law and science) by resort to second-order discourses of reason (e.g. philosophy) is replaced with a picture of knowledge as a move within a game, specifically a "language game."

Dennis Patterson, *Postmodernism/Feminism/Law* 77 CORNELL L. REV. 254, 256 n. 9 (1992).

[12] *See, e.g.*, Mootz, *supra* note 6, at 638-39. Professor Mootz has described critical legal theorists as seeking to reveal the inherent choices courts faces in interpreting the law:

> Much of the work by critical race theorists, radical feminist, and gay legal scholars . . . seek to displace the conceit that law operates as a rational enterprise, not by claim that law is hopelessly irrational, but by demonstrating that law often requires a reasonable judgment as between

In examining the Court's language games, this Article describes rhetorical tools that the Court has used in deciding cases.[13] Instead of despairing at the Fourth Amendment jurisprudential "mess," this Article invites the reader to ask what the "mess" tell us about policing in our society.[14] By discerning the lack of clear, objective rules, we are able to view legal doctrines, principles and interpretations as

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> two or more logically acceptable resolutions of any given issue. The radical critique discloses connections between the seemingly "natural" presuppositions of judgment by tracing them to constitutive social processes that embody contingent and debatable beliefs about, inter alia, race, gender, and sexual orientation.

Id.

[13] *See, e.g.,* MICHAEL J. GERHARDT, THOMAS D. ROWE, REBECCA L. BROWN, & GIRARDEAU A. SPANN, CONSTITUTIONAL THEORY: ARGUMENTS AND PERSPECTIVES 1 (2d ed. 2000) (stating that even though "widespread consensus does exist that the constitutional text, history, structure, and precedent are valid sources for constitutional advocacy and decisionmaking, deep divisions [have arisen] over their use and their very nature"); J.M. Balkin, *Transcendental Deconstruction: Transcendent Justice*, 92 MICH. L. REV. 1131, 1138 (1994) (arguing that "deconstructive argument is a species of rhetoric, which can be used for different purposes depending upon the moral and political commitments of the deconstructor"); Linda Meyer, *Between Reason and Power: Experiencing Legal Truth*, 67 U. CIN. L. REV. 727, 754 (1999) (stating that judges ultimately have to decide which rhetorical tool best fits a particular case: "slippery slope" argument, "floodgates of litigation" argument, "plain language" argument, "deterrence" argument, "counter-majoritarian" argument and "framer's intent" argument); Patricia M. Wald, *The Rhetoric of Results and the Results of Rhetoric: Judicial Writings*, 62 U. CHI. L. REV. 1371, 1377 (1995) ("In virtually all cases, the judge shapes her raw material. She picks her rhetoric to foreshadow the result"); Robin West, *Constitutional Fictions and Meritocratic Success Stories*, 53 WASH. & LEE L. REV. 995, 995 (1996) (noting that the Supreme Court "tells stories about our collective past–our political and social history–to support the results for which it argues"; adding that "those political and social histories are not simply true or false: like stories of fact and precedent, such histories are a blend of fact and falsehood").

[14] Professor Laurence H. Tribe in 1988 raised a similar, but different, question about the Supreme Court's wildly inconsistent state-action decisions. LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW 1691 (2d ed. 1988). He stated that "it is possible to construct an 'anti-doctrine,' an analytical framework which, in explaining why various cases differ from one another, paradoxically provides a structure for the solution of state action problems." *Id.* Professor Tribe characterized this approach as "the way out of the forest is through the trees." *Id.* In contrast, this Article does not offer a structural solution to the "mess," but rather views the inconsistencies under the Fourth Amendment as lenses to examine the culture as seen by the Supreme Court justices.

reflecting our society, the "small-'c' constitution," a term Professor David A. Strauss has used in discussing the relationship between the written Constitution and its interpretation. The "small-'c' constitution" refers to the "fundamental institutions of a society, or the constitution in practice."[15] For him, "the forces that bring about constitutional change work their will almost irrespective of whether and how the text of the Constitution is changed."[16]

One leading postmodern scholar, Professor Jack Balkin, has contended that the best way to use postmodern perspectives is to ask the following question: "How have changes in technology, communication, and the organization of living and working changed the public's understanding and practice of law, the Constitution, human rights and democracy?"[17] His question has special significance when police officers, lawyers, and judges question whether governmental officials' use of new technology would violate the Fourth Amendment, particularly after the tragic events of September 11, 2001. Since adoption of the Fourth Amendment in 1791, the United States Supreme Court has repeatedly confronted the question of how to interpret the Fourth Amendment in light of technological developments, but the rapid growth of technology in our contemporary world heightens our need to understand the Court's definition of what constitutes a "search" within the meaning of the Fourth Amendment.

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[15] David A. Strauss, *The Irrelevance of Constitutional Amendments*, 114 HARV. L. REV. 1457, 1459-60 (2001).

[16] *Id.* at 1458-59. Professor Strauss establishes the importance of current society in interpreting the Constitution by examining four propositions:

> First . . . sometimes matters addressed by the Constitution change even though the text of the Constitution is unchanged. Second, . . . some constitutional changes occur even though amendments that would have brought about those very changes are explicitly *rejected*. Third, when amendments are adopted, they often do no more than ratify changes that have already taken place in society without help of an amendment. The changes produce the amendment, rather than the other way around. Fourth, when amendments are adopted even though society has not changed, the amendments are systematically evaded. They end up having little effect until society catches up with the ambitions of the amendment.

Id. at 1459. In short, society projects meaning (or no meaning) onto an amendment; the text does not give us its meaning, but society does.

[17] Balkin, *Postmodern Constitutionalism, see supra* note 4, at 1977.

Postmodern constitutional law theory recognizes the evolving nature of law. It helps us to see that Fourth Amendment analysis is a product of our times. By considering several themes of postmodernism,[18] we are able to view justices' and scholars' offering constructions of the law rather than "interpretations."[19] As one postmodernist has stated, the "reigning mythology of American law and legal studies . . . typically frames law as if it were a priori subject to the dictates of reason, intelligence and really good normative arguments."[20] The metaphor of "constructing" law as opposed to "interpreting" law highlights communities' projecting their meaning in text.[21] The perception of the Court's shifting paradigms and inconsistencies may not only reflect our particular communities' values, but also suggests changes in our society or, in the context of this Article, particular changes in technology.[22]

Part I discusses postmodernism. It reveals that both conservatives and liberals may use the insights of postmodernism to further their communities' agendas or goals.[23] As many scholars have noted, the word "rhetoric" itself is susceptible to different definitions[24]–including the "ignoble art of persuasion,"[25] the enterprise of describing the probable "meaning" of an event[26] or any type of argument.[27] What distinguishes "crass manipulation" from probable "meaning" depends upon a particular community's experiences.[28] Some communities find arguments to be "crass manipulation" but others will embrace the argument, labeling it a "truth."[29] The difference in perception depends upon a particular community's constructed standards, which arise from its embedded experiences. In short, that which seems persuasive (or that which seems "true") "must always be a social construction," one mediated by our "social, cultural, linguistic, and historical circumstances."[30] This article, with its postmodernism perspectives, considers "rhetoric" as indicative of cultural or community meaning rather than objective, universal "truth."[31] In short, different communities

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[18] Professor Morgan Cloud has stated that "pragmatism commands that decisionmakers should not be bound by antecedent principles or rules; they should make decisions grounded in social and physical realities." Morgan Cloud, *Pragmatism, Positivism, and Principles in Fourth Amendment Theory*, 41 UCLA L. REV. 199, 212 (1993). In contrast, postmodernists do not believe that "antecedent principles and rules" actually constrain decisionmakers. In addition, under Professor Cloud's characterization of pragmatism, this approach can be "conservative" when "rooted in contextualism" because it "empowers instrumental impulses." *Id.* at 211. In contrast, postmodernists believe that their view of interpretation allows decisionmakers great latitude, affording liberal, conservative, down-the-middle-of-the road constructions. *See* Stephen Feldman, *The Supreme Court in a Postmodern World: A Flying Elephant,* 84 MINN. L. REV. 673, 678-79 (2000).

[19] *See, e.g.,* Pierre Schlag, *The Aesthetics of American Law,* 115 HARV. L. REV. 1047, 1102 n.198 (2002).

[20] *Id.*

[21] For a discussion of textual arguments, *see infra* text accompanying notes 87-90, 103-12.

[22] *See* text accompanying *infra* notes 88-102; *see also* Christopher Slobogin, *Peeping Techno-Toms and the Fourth Amendment: Seeing Through* Kyllo's *Rules Governing Surveillance*, 86 MINN. L. REV. 1393 (2000) (citing empirical studies to challenge the Court's characterization enhanced home surveillance and its perceived intrusiveness).

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[23] *See, e.g.*, Feldman, *supra* note 18, at 678 (stating that "postmodernism is politically ambivalent" and noting that Chief Justice Rehnquist's and Justice Scalia's "political conservatism does not prevent them from being postmodernists."); Robert Justin Lipkin, *Can American Constitutional Law Be Postmodern?* 42 BUFF. L. REV. 317, 325 n.18 (1994) (stating that "two general approaches to postmodernity exist: a radical approach and a reconstructive approach." The "radical approach seeks an abrupt break with modernity and modern theories, while the reconstructive approaches uses both modern and postmodern elements in their attempt to reconstruct critical social theory"); Peter C. Schanck, *Understanding Postmodernism Thought and Its Implications for Statutory Interpretation*, 65 S. CAL. L. REV. 2505, 2512 n.24 (1992) (stating that "postmodernism can serve the interests of right-wing dissenting or nonmainstream ideas as well as marginal left-wing perspectives"). *But see* Dennis W. Arrow, *Spaceball (Or, Not Everything That's Left Is Postmodern)*, 54 VAND. L. REV. 2381, 2384-85, 2397 (2001) (generally describing postmodernists as embracing a "Leftist Vision").

[24] *See, e.g.,* Linda L. Berger, *Applying New Rhetoric to Legal Discourse: The Ebb and Flow of Reader and Writer, Text and Context,* 49 J. LEGAL EDUC. 155, 155 (1999) (stating that the "rhetoric of legal discourse believes that writing is a process for constructing belief, not knowledge"); Lawrence Douglas, *Constitutional Discourse and Its Discontents: An Essay on the Rhetoric of Judicial Review, in* THE RHETORIC OF LAW 225, 225-26 (Austin Sarat & Thomas R. Kearns eds., 1994) (invoking Plato's and Aristotle's works to describe two meanings for "rhetoric"–argument to derive "the meaning rather than the truth of an event" and the "ability to twist and manipulate words for the purposes of winning"); Linda Meyer, *Between Reason and Power: Experiencing Legal Truth*, 67 U. CIN. L. REV. 727, 729 (1999) (rejecting characterization of "rhetoric" as "sweet talk" or manipulation and instead defining it as "the articulation of practical reason, a bringing to words, and thereby experience, of practical deliberation that resists formulation as rules or facts and may even become clearest for both the speaker and the audience at times as analogy, metaphor, story, or image"); Richard A. Posner, *Judges' Writing Styles (And Do They Matter?),* 62 U. CHI. L. REV. 1421, 1422 (1995) ("'[r]hetoric' is both broader and narrower than 'style.' It is broader because it has, since Aristotle, connoted a process or reasoning as well as the medium of verbal expression, a process that Aristotle contrasted with logic and other modes of exact reasoning as being the mode appropriate for debate and deliberation over matters of deep uncertainty."); Gerald B. Wetlaufer, *Rhetoric and Its Denial in Legal Discourse*, 76 VA. L. REV. 1545, 1546, 1548 (1990) (describing "rhetoric" as "the discipline, sometimes the metadiscipline, in which objects of formal study are the conventions of discourse and argument" and adding that "[r]hetoric offers us a set of tools for thinking about the discursive conventions within which we work").

[25] James Boyd White, *Law as Rhetoric, Rhetoric as Law: The Arts of Cultural*

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and Communal Life, 52 U. CHI. L. REV. 684, 687 (1985) (applying this denotation to "the standard modern condemnations of government propaganda and of the kind of advertising practiced by the wizards of Madison Avenue"); *see also* RICHARD A. POSNER, LAW AND LITERATURE 256 (2d ed. 1998) (stating that the "commonest meaning of the word 'rhetoric' in every day speech . . . [is] empty verbiage").

[26] *See, e.g.,* Douglas, *supra* note 24, at 226 (using the term "rhetoric" to describe meaning, not truth, for questions not capable of being placed in syllogisms, such as whether a "particular culture was in decline").

[27] *See, e.g.,* Schanck, *supra* note 23, at 2551 (stating that Stanley Fish's interpretative theory maintains that "[a]ll arguments . . . are rhetorical in nature" and that "we cannot logically maintain that certain statements are true representations of reality while others are 'mere' rhetoric"). The truthfulness of a statement depends upon a community's standards: "those arguments and statements that we consider persuasive are experienced by us as true or as substantive, while those we find empty or contrary to our understandings are experienced as rhetorical." Schanck, *supra* note 23, at 2551-52.

[28] Schanck, *supra* note 23, at 2551-52.

[29] *See, e.g.,* Schnack, *supra* note 23, at 2551.

[30] Schanck, *supra* note 23, at 2551.

[31] Professor James Boyd White has described law as "constitutive rhetoric:"

> Both the lawyer and the lawyer's audience live in a world in which their language and community are not fixed and certain but fluid, constantly remade, as their possibilities and limits are tested. The law is an art of persuasion that creates the objects of its persuasion, for it constitutes both the community and the culture it commends.

White, *supra* note 25, at 691; *see also* Anthony T. Kronman, *Rhetoric*, 67 U. CIN. L. REV. 677, 690 (1999) (describing Michael Foucault as viewing the world as a "rhetorical structure," one that "possesses no antecedent order of its own, but acquires one only through the constitutive organizing power of 'words'").

construct different views of what is true, what is reasonable.

Part II considers the Court's shifting constructions of what constitutes a Fourth Amendment "search." It highlights that these shifting and conflicting views allow the Court to wander down many different roads when interpreting what constitutes a "search." For example, in 1987, Justice Scalia simply stated, "[a] search is a search,"[32] but in 2001, he stated that doctrine should inform the Court "[i]n assessing when a search is not a search."[33] Part III then examines the Court's application of its modern "search" definition in several contexts; Part IV highlights the Court's rhetorical devices for constructing a Fourth Amendment "search" in its most recent decision, *Kyllo v. United States*.[34] It demonstrates the importance of characterization in deciding cases and in shifting or synthesizing "search" paradigms. Postmodern perspectives aid us in understanding the Court's alleged jurisprudential "mess." Instead of despairing about the inconsistencies, the section suggests that these rhetorical devices, created by a varieties of legal communities, give the Court great flexibility to shape Fourth Amendment jurisprudence, whether to merely decide a pending case or to foreshadow (and later explicitly construct) a new paradigm for evaluating officials' use of emerging technologies.

I. POSTMODERNISM THEMES

Numerous definitions of "postmodernism" exist.[35] Some scholars have identified three aspects of postmodernism.[36] First, postmodernism is the time we live in;[37] it is an historical period, one "originating just after World War II but gaining momentum as the sixties approached."[38] Postmodernism first surfaced in the arts and included works by John Cage, William Faulkner, Phillip Glass, Edvard Munch, and Andy

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[32] Arizona v. Hicks, 480 U.S. 321, 325 (1987) (holding officer's moving of equipment was search under Fourth Amendment).

[33] Kyllo v. United States, 533 U.S. 27, 32 (2001) (holding use of sense-enhancing technology to gain information on interior of home was "search" under Fourth Amendment.

[34] *Kyllo*, 533 U.S. at 27.

[35] *See, e.g.,* Harris, *supra* note 4, at 748 (stating that "[t]here are as many different definitions of postmodernism as there are postmodernists"); Tracy E. Higgins, *"By Reason of Their Sex": Feminist Theory, Postmodernism, and Justice,* 80 CORNELL L. REV. 1536, 1539 n.12 (1995) (noting that "[p]ostmodernism is a disputed term, one not susceptible to simple definition; and focusing on one important aspect of postmodernism–"postmodernism's denial that ideas exist apart from the practices in which they are embodied"); Jennifer Wicke, *Postmodern Identity and the Legal Subject*, 62 U. COLO. L. REV. 455, 456 (1991) (stating that

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"[t]here are more than thirty-one flavors of postmodernism . . . " and "the decision about what postmodernism is remains as fraught as ever–one reason why postmodernism can maintain its franchise and even set up new outposts on criticism's terrain"). Some scholars have described their works as a hybrid of modernism and postmodernism. *See, e.g.*, DUNCAN KENNEDY, A CRITIQUE OF ADJUDICATION: {*fin de siecle*} 17 (1997) (characterizing his writings as "left wing and modernist/postmodernist").

[36] *See, e.g.*, LITOWITZ, *supra* note 4, at 7-19; Balkin, *Postmodern Constitutionalism, supra* note 4, at 1967-72. Some scholars have created two broad categories–the historical and theoretical–to focus a discussion of what constitutes postmodernism. *See, e.g.,*Wicke, *supra* note 35, at 457 (referring to a "historical periodization where the postmodern genuinely described a convergence of historical phenomena" and "congeries of theoretical suppositions about the nature of language, texts and human subjects within the lens of the social"). And others have created their own labels to describe these distinctions. *See, e.g.*, James Boyle, *Anachronism of the Moral Sentiments? Integrity, Postmodernism, and Justice*, 51 STAN. L. REV. 493, 497 (1999) (stating postmodernism has two aspects: a "cultural schtick," which he labels "pomo," and an "earnest epistemology whose natural habitat is the Modern Language Association annual conference").

[37] *See, e.g.*, STEPHEN M. FELDMAN, AMERICAN LEGAL THOUGHT FROM PREMODERNISM TO POSTMODERNISM: AN INTELLECTUAL VOYAGE 38 (2000) (stating that "postmodernism certainly is *not* over"). Professor Feldman believes that "postmodernism is best understood as an extant intellectual, cultural, and social era that, in fact, is still in its youth." *Id.*; *see also* TERRY EAGLETON, THE ILLUSIONS OF POSTMODERNISM 20 (1996) (stating that "we are living in . . . postmodernism"); GARY MINDA, POSTMODERN LEGAL MOVEMENTS: LAW AND JURISPRUDENCE AT CENTURY'S END 68 (1995) (stating that "[t]his generation, Generation X, belongs to a particular epoch, namely, that of postmodernism"); Balkin, *Postmodern Constitutionalism, supra* note 4, at 1967 (arguing postmodernity is current cultural era); Lipkin, *see supra* note 23, at 332 (stating that the "present age is contingently regarded by many as the age of postmodernity"). *See generally* Schanck, *supra* note 23, at 2560 (noting the "absence of a general postmodern zeitgeist" and the lack of "widespread recognition that people's view of reality are social constructions"). For example, a search in Westlaw of the phrase "postmodern!" in the *tp-all* database gets intercepted by the company because it would result in too many citations, but a search of *allfeds* and *allstates* databases resulted in a total of only fourteen citations. (Search conducted June 27, 2002). *But see* Patterson, *supra* note 11, at 257 n.9 (stating that "[w]hether or not we are in postmodernity is, of course, very much open to question").

[38] *See* LITOWITZ, *supra* note 4, at 8.

Warhol, to name a few.[39] These artists "stressed the breakdown of linear narrative" and "the rise of pastiche."[40] Second, "postmodernism is also the set of cultural products created during the era of postmodernity,"[41] "such as film, television, fax machines, cable television, video and the Internet."[42] Third, postmodernism is a "set of general perspectives for interpreting and evaluating culture and the products of culture."[43] Although these three levels in part explore new boundaries, postmodern legal interpretation theory has focused on how different communities construct different boundaries or perspectives. As a result, multiplicity is a strong theme within postmodernism as a philosophy, but not within one's circle.[44] As one scholar aptly noted, "[a] postmodern philosophy does not—cannot—lead to a postmodern way of life"[45] because within our own circle we do not embrace this multiplicity. Many scholars have attempted to describe this postmodern philosophical perspective by constructing different themes for postmodernism and modernism.[46]As the language suggests, postmodernity follows modernity.[47] Modernism's time frame spanned from "mid-Enlightenment to the 1960s and early 1970s."[48] Modernism represented a belief in a foundation, one that "would support and constrain judicial decisionmaking."[49] With respect to constitutional interpretation, modernism represented a belief that by using reason, we would be able to ascertain objective principles–to "discover the correct constitutional methodology."[50] In addition, modernism believed in "the existence of a neutral and objective faculty of reason which can be used to generate first principles of morality and law."[51]

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[39] *See, e.g.*, LITOWITZ, *supra* note 4, at 8 (stating that movement began "just after World War II but gaining momentum as the sixties approached); *see* Wicke, *supra* note 35, at 458-59.

[40] LITOWITZ, *supra* note 4, at 8.

[41] Balkin, *Postmodern Constitutionalism, supra* note 4, at 1969.

[42] Douglas Litowitz, *In Defense of Postmodernism*, 4 GREEN BAG 2D 39, 41 (2000) (arguing postmodernism can be understood on three corresponding levels); *see also* Balkin, *Postmodern Constitutionalism, supra* note 4, at 1969. *But see* Boyle, *supra* note 36, at 497 n.6 (rejecting communications developments as an aspect of postmodernism, but agreeing as to the arts forms that emerged).

[43] Balkin, *Postmodern Constitutionalism, supra* note 4, at 1971.

[44] *See, e.g.,* Schanck, *supra* note 23, at 2560 (stating that "simply because *intellectuals* may believe that truth is contingent and local does not mean that most people do").

[45] Schanck, *supra* note 23, at 2560.

[46] *See, e.g.,* LITOWITZ, *supra* note 4, at 10-17 (using contrasting quotations from postmodernist and modernist writers to highlight different perspectives); Schanck, *supra* note 23, at 2507 (describing postmodernism as the "prevailing paradigm" "underlying critical legal studies").

[47] *See, e.g.,* JEAN-FRANCOIS LYOTARD, THE POSTMODERN EXPLAINED: CORRESPONDENCE 1982-1985 12-13 (1993). Lyotard answered the question "What then is the postmodern?," with a paradox: "A work can become modern only if it is first postmodern. Thus, understood, postmodernism in not modernism at its end, but in a nascent state, and this state is recurrent." *Id.* He further added,

Scholars have identified several general intellectual stages of modernism.[52] In the first stage, lawyers and courts re-

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"*Postmodernism* would be understanding according to the paradox of the future (*post*) anterior (*modo*)." *Id.* at 15.

[48] LITOWITZ, *supra* note 4, at 7; *see also* Schanck, *supra* note 23, at 2575 (noting that legal realists "presaged postmodernism by rejecting legal formalism," but that not until the 1970s with the Critical Legal Studies movement did "postmodernism concepts again become highly visible"). *But see* Patterson, *supra* note 11, at 256 n.9 (stating that "[m]odernity is that period in human history which begins with the Enlightment and continues to the present").

[49] *See, e.g.*, MINDA, *supra* note 37, at 224-25 (stating that "modernity characterizes the view of traditional jurisprudential scholars who shared a common belief in the possibility of systematizing legal knowledge using coherent and verifiable propositions about the nature of law and adjudication"); Robert L. Hayman, Jr., *The Color of Tradition: Critical Race Theory and Postmodern Constitutional Traditionalism*, 30 HARV. C.R.-C.L. L. REV. 57, 59 n.5 (1995) (discussing the definition of postmodernism). Professor Hayman has noted that even though postmodernism "remains a very loose pastiche of ideas—the discourse is multi-dimensional, multi-directional, and largely unbounded"–it nevertheless calls "into question modernism's central beliefs in rationality, autonomy, progress, and self-awareness." *Id.*; *see also* Higgins, *supra* note 35, at 1539 n.9 (defining "'modernism' loosely as a form of thought that seeks to create a general theory about the representation of nature in the mind" and adding that the "modernist or foundationalist theory of representation provides a cross-cultural and trans-historical account of truth and rationality that in turn serves as a basis for social criticism").

[50] Lipkin, *supra* note 23, at 321. Lipkin also stated that the "hallmark of the modern age was the commitment to reason, science, ethics, and more generally, the conviction that these disciplines reflected an independent reality." Lipkin, *supra* note 23, at 328.

[51] LITOWITZ, *supra* note 4, at 10.

[52] *See, e.g.*, FELDMAN, *supra* note 37, at 22-28 (describing four stages of modernism: "rationalism," "empiricism," "transcendentalism," and "late crisis"); MINDA, *supra* note 37, at 13-80. Professor Minda has created numerous categories for modernism, marking 1871, as the beginning of American modern jurisprudence,

jected natural law as a foundation for decisions.[53] Instead of looking to churches or the King for knowledge,[54] they looked to positivism and viewed law as a science after the Civil War.[55] Law was "a transcendent object or transcendent subject, unaffected by social and economic context."[56] In the second stage, American legal realism occurred, which "turned to experience as the source of objectivity,"away from the belief that "abstract rules could disclose legal truths."[57] Legal pro-

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with the publication of the first contracts casebook, MINDA, *supra* note 37, at 13; the Legal Realist movement of the 1920s and 1930s, MINDA, *supra* note 37, at 25; the Legal Process movement of 1940s and 1950s, which tried to explain "how respect for procedure and principled decision making might lead judges to outcomes that conform to institutional and democratic norms," MINDA, *supra* note 37, at 34; the "neutral principles" of the 1960s, MINDA, *supra* note 37, at 37; "normative legal thought" of the post-1960s, MINDA, *supra* note 37, at 57.

[53] *See, e.g.,* Patterson, *supra* note 11, at 269 n.68 (noting that "premodern categories" were "religious authority[] and cosmology–an understanding of the world that explains the existence of the universe by postulating the existence of a deity").

[54] *See also* Lipkin, *supra* note 23, at 326. Professor Lipkin has noted that in the pre-modern era "[o]ne had the right to proclaim knowledge only when one's position in society so permitted" and that "the word of the Pope or King, or their representative was law." Lipkin, *supra* note 23, at 326. He explained that the ability to declare knowledge depended not on an individual's intellectual inquiry, but rather on "membership in particular groups, such as the church, the crown, the aristocracy, guilds, and other associations." Lipkin, *supra* note 23, at 326.

[55] FELDMAN, *supra* note 37, at 83-105. *See also* Patterson, *supra* note 11, at 263 n.41 (stating that "[i]f any single theme runs through the whole of modernity it is the idea of autonomy," adding that "in politics, the subject is free to decide her own conception of the good; in the art, the work of art must be allowed to 'speak for itself'").

[56] MINDA, *supra* note 37, at 14.

[57] FELDMAN, *supra* note 37, at 113. Other scholars have described differently this period, labeling the legal science and legal realist movements as "marginal academic movements." For example, Professor Guyora Binder and Robert Weisberg have characterized different stages within their categories of "Progressive Interpretation" and the "Crisis of Progressive Interpretation." *See* BINDER & WEISBERG, *supra* note 11, at 56-111. Binder and Weisberg noted,

> Morton Horwitz has defined Legal Realism broadly as including any attack on legal science (variously characterized as legal orthodoxy or classical legal thought) in the name of Progressive social policy. . . . Since we see legal science as an aspect of, or at most a dialectical moment in, the evolution of Progressive legal thought, we find this definition ultimately unhelpful. It amounts to building an ideologically and epistemologically purified Progressivism by projecting much of its conservative, technocratic, and elitist currents onto a fictively coherent opponent. This evades the

cess theory developed during the third stage, which believed in "right" answers to legal questions, rejecting legal realism's embracing of legal indeterminacy.[58] Legal process theorists studied institutions and their competencies.[59] In the final stage, crisis occurred, with some scholars characterizing it as the "Age of Anxiety." At this time, contemporary social problems seemed no longer addressed by law's authority; for some, "the authority of the law was seen as part of the problem."[60]

Many scholars still vehemently (and at times acrimoniously)[61] debate what we mean by the labels "modernist" and "postmodernist."[62] Even though postmodernism "is neither a

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> challenge of understanding how ideas that today seem antithetical could have coexisted in the same discourses, the same social circles, and the same minds. We think it better to treat Legal Science and Legal Realism as necessarily marginal academic movements, illuminating sideshows to and rhetorical hypertrophies of mainstream legal thought.

Id. at 81 n.288.

[58] *See* MINDA, *supra* note 37, at 34.

[59] *See, e.g.*, MINDA, *supra* note 37, at 34-35; FELDMAN, *supra* note 37, at 121 (stating the legal process theorists contended that "reasoned elaboration meaningfully constrain[ed] judges in ways that executive officers, legislators, and administrators [were] not constrained").

[60] MINDA, *supra* note 37, at 66. *See also* FELDMAN, *supra* note 37, at 126 (stating that stage was "characterized by deeply inconsistent attitudes and projects–anxiety, despair, anger, denunciations, and increasingly complex modernist solutions that seized upon a combinations of rationalism, empiricism, and transcendentalism").

[61] *See, e.g.*, Dennis W. Arrow, *Pomobabble: Postmodern Newspeak and the Constitutional "Meaning" for the Uninitiated,* 96 MICH. L. REV. 461 (1997) (using "newspeak" and satire to capture the author's view that postmodernism has nothing to offer to any one, and ironically not defining "modernism" in this mammoth article). For an excellent (and readable) response, see Stephen Feldman, *supra* note 37, at 2362 (rejecting the view that postmodernism is tied to "nihilism, idealism, [and] relativism"); *see also* Ronald J. Krotoszynski, Jr., *Legal Scholarship at the Crossroads: On Farce, Tragedy, and Redemption*, 77 TEX. L. REV. 321, 325 (1998) (hypothesizing reasons for Arrow to write (and the law review's decision to publish) a 228-page parody).

[62] *See, e.g.*, john a. powell, *The Multiple Self: Exploring Between and Beyond Modernity and Postmodernity*, 81 MINN. L. REV. 1481, 1505 (1997) (ironically noting that a "number of writers have suggested that postmodernism derives from and depends on modernism and that the very attempt to disprove modernism is based on modernist assumptions"). Even self-described postmodernists have ironically noted that by labeling a period as "modernism" or "postmodernism" one is not expressing a postmodernist's perspective because postmodernism is anti-essentialism; yet, because postmodernism is also rooted in paradoxes and irony,

theory nor a concept,"[63] some scholars have nevertheless attempted to construct broad themes describing postmodernism, recognizing that their perspectives would necessarily lay the groundwork for both criticism and contradiction.[64] Some of

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one may still characterize modernism and postmodernism. *See, e.g.*, FELDMAN, *supra* note 37, at 40-41.

[63] MINDA, *supra* note 37, at 224 (stating that postmodernism is "a skeptical attitude or aesthetic" that rejects grand theories and the belief in a "complete and coherent" legal system); *see also* Schanck, *supra* note 23, at 2597 (stating that "the practice of theory is a perfectly legitimate activity from a postmodern perspective, but not if it attempts to guide practices from an Olympian perspective").

[64] *See, e.g.,* EAGLETON, *supra* note 37, at vii (defining "postmodernity" as "a style of thought which is suspicious of classical notions of truth, reason, identity and objectivity, of the idea of universal progress or emancipation, of single frameworks, grand narratives or ultimate grounds of explanation"); FELDMAN, *supra* note 37, at 44 (referring to the "pastiche of postmodern practices" after describing eight themes of postmodernism: the rejection of foundations and essentialism, *id.* at 163; the rejection of certainties, and boundaries, *id.* at 166; the recognizing of numerous paradoxes, *id.* at 169; the "focus on power and its manifold manifestations," *id.* at 169; the "social construction of the self or subject," *id.* at 174; the analysis of a postmodernist's own orientation, *id.* at 179; the "use of irony," *id.* at 180; and political "ambivalence," *id.* at 181; LITOWITZ, *supra* note 4, at 10-19 (describing themes of postmodernism: rejecting the idea of objective reason; viewing "human behavior" as "socially constructed"; believing that "truth is constructed, changing, and affected by the distorting influences of class, race, and gender"; rejecting "self-evident principles of justice and natural law"; believing that texts have multiple meanings and "no ultimate meaning"; rejecting the notion of history reflecting "moral progress"; and recognizing the difficulty and irony of using language to challenge modernist perspectives"); BRIAN Z. TAMANAHA, REALISTIC SOCIO-LEGAL THEORY: PRAGMATISM AND A SOCIAL THEORY OF LAW 4-5 (1997) (viewing the themes of postmodernism as including the following: "'a conviction that no single a priori thought system should govern belief'"; the world forms "'the background and condition of every cognitive act'"; "'[a]ll human understanding is interpretation, and no interpretation is final'"; in discerning truth and reality, a person "'can never presume to transcend the manifold predispositions of his or her subjectivity'"; and "'all meaning [of a text] is ultimately undecidable'") (quoting RICHARD TARNAS, THE PASSION OF THE WESTERN MIND: UNDERSTANDING THE IDEAS THAT HAVE SHAPED OUR WORLD VIEW 95-99 (1991)); Schanck, *supra* note 23, at 2508 (describing the following themes as interrelated: the self is "purely a social, cultural, historical, and linguistic creation"; because there are no foundational principles, "certainty as the result of either empirical verification or deductive reasoning is impossible"; "[t]here can be no such thing as knowledge of reality"; "all propositions and all interpretations, even texts, are themselves social constructions"). *See generally* BRIAN BIX, JURISPRUDENCE: THEORY AND CONTEXT 231 n.18 (2d 1999) (listing five general themes of postmodernism: "rejecting the idea of a foundational or transcendent source for truth or justification;" "rejecting the notion of determinate unique meanings or statements, texts, or events;" asserting "that truth and identity are socially constructed or culturally constructed;"

these broad-brushed themes provide an excellent horizon for scrutinizing the Supreme Court's multiple constructions of what constitutes a Fourth Amendment "search," as later discussed in Parts II-IV.

One important theme of postmodernism is the rejection of foundations, which discards the idea of a singular Truth.[65] In contrast to modernism, which viewed reason as the avenue to objectivity,[66] postmodernism does not see this road. Instead, it sees multiple roads ahead because multiple communities compose our society and each one has its own "truth."[67]

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rejecting grand narratives (e.g., seeing history as a movement towards ever greater rationality or ever greater liberty, or seeing law as a movement 'from status to contract')"; and emphasizing "the irrational or unconscious influences on action and belief"). For a discussion of these authors' themes, see *infra* text accompanying notes 65-71.

[65] *See, e.g.,* LITOWITZ, *supra* note 4, at 13 (stating that "postmodernists are skeptical about the notion of a fixed Truth (with a capital letter)" and quoting Michael Foucault, *Truth and Power, in* POWER/KNOWLEDGE: SELECTED INTERVIEWS AND OTHER WRITINGS, 1972-1977, 133 (Colin Gordon et al. trans. & ed., New York Pantheon 1980) ("'Truth' is linked in a circular relation with systems of power which produce and sustain it, and to effects of power which it induces and which extend it. A 'regime' of truth"); PIERRE SCHLAG, THE ENCHANTMENT OF REASON 144 (1998) ("What is called reason these days is very often not. Very often 'reason' is little more than a pleasant name for faith, dogma, prejudice, and company."); Francis J. Mootz, *The Paranoid Style in Contemporary Legal Scholarship,* 31 HOUS. L. REV. 873, 885 (1994) (stating that "antifoundational accounts of the rule of law . . . emphasize that the law never operates outside the context of wider social struggles to define the terms of sociopolitical organization"); *see also* LITOWITZ, *supra* note 4, at 9-10 (stating that postmodernists reject the "notion that the just state can be founded upon first principles" and that they "deny the existence of a neutral and objective faculty of reason which can be used to generate first principles of morality and law"). *See generally* Schanck, *supra* note 23, at 2559 (stating that the "factor that would transform the nature of the human condition from modern to postmodern is a general sense that all knowledge is contingent and that the truth is subject to context").

[66] *See, e.g.,* Lipkin, *supra* note 23, at 328 (stating that modernism viewed reason and science as the means to "reveal the complete truth about physical and moral reality"); Patterson, *supra* note 11, at 266 (stating that "knowledge on the modernist view is foundational, whether derived from rationalism or empiricism," but noting that language may be representational but that "truth" does not apply to "moral judgments").

[67] *See, e.g.,* CHRISTOPHER NORRIS, WHAT'S WRONG WITH POSTMODERNISM: CRITICAL THEORY AND THE ENDS OF PHILOSOPHY 178 (1990). Norris has criticized postmodernists for believing that "all theories, truth-claims, ethical principles, etc., *must* be construed in terms of some given consensus or 'interpretive community.'"

Postmodernism contends that "[h]uman knowledge is the historically contingent product of linguistic and social practices of particular local communities of interpreters, with no assured 'ever-closer' relation to an independent ahistorical reality."[68] Postmodernism rejects the idea of an objective truth, an objective historical narrative,[69] an objective "X."[70] In short, postmodernism "challenges the possibility of grounding reason

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Id. As a result, postmodernists would continue debating, but realize that "(at some level) that there were no ultimate truths to be had, no ground-rules or principles beyond those offered by the range of currently available beliefs." *Id.*; *see also* Pierre Schlag, *The Empty Circles of Liberal Justification,* 96 MICH. L. REV. 1, 31 (1997) (stating "the image of the consumer as someone induced from *outside* to enter the circle of liberal justification is wrong. In many important senses, the consumer *is already within the circles of liberal justification*").

[68] TAMANAHA, *supra* note 64, at 4 (quoting RICHARD TARNAS, THE PASSION OF THE WESTERN MIND: UNDERSTANDING THE IDEAS THAT HAVE SHAPED OUR WORLD VIEW 95-99 (1991)).

[69] For an excellent, in-depth analysis of shifting constructions of history in constitutional law, see G. Edward White, *The Arrival of History in Constitutional Scholarship* 88 VA. L. REV. 485 (2002). Professor White has noted that interpreters' claim to historical "objectivity" represents their belief that past is separate from the present. *Id.* at 492. In contrast, when interpreters view the present as linked to the past, their view "undermines a strong belief in historical objectivity." *Id.* at 493. For White, even when "present actors" view their circumstances different from the past, they cannot claim history to be "entirely 'irrelevant' to their existence." *Id.* at 614. He views them as acting "with the weight of their immediate past pressing upon them." *Id.*; *see also* Thomas Y. Davies, *The Fictional Character of Law-and-Order Originalism: A Case Study of the Distortions and Evasions of Framing-Era Arrest Doctrine, in* Atwater v. Lago Vista, 37 WAKE FOREST L. REV. 239, 246 (2002). Professor Thomas Davies has vehemently attacked the Court's perspective historical analysis of the Fourth Amendment in *Atwater*, which held that an officer acted reasonably when conducting a warrantless custodial arrest for minor offense. He stated that the Court's "supposed historical analysis consisted almost entirely of rhetorical ploys and distortions of historical sources." *Id.* He also claimed that the Court "omitted" historical sources that are "plainly inconsistent with framing-era doctrine." *Id.* at 246-47. Although a postmodernist would view such conflicting constructions of history as inevitable, the sharp contrast between Professor Davies' historical perspective and the Court's perspective highlights the role of rhetorical devices in constructing an historical argument.

[70] *See, e.g.,* LITOWITZ, *supra* note 4, at 34-35 (stating that postmodernism rejects the "foundational concepts" of "neutrality, justice, reason, history, nature, the social contract, God, the rational self, and the inherent autonomy of the individual"; adding that "postmodernism is characteristically critical, seeking to expose the foundations of modern jurisprudence as constructs or ideologies which parade as eternal verities").

in anything other than actual social practices."[71]

Another way to describe postmodernism's rejection of foundations is to consider the term "antiessentialism."[72] Essentialism has a core[73]; antiessentialism has no static core. As a result, the postmodernist contends that any paradigm attempting to capture the essence of a doctrine or a person's identity necessarily reflects its own particular community's view, not the view of all communities.[74]

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[71] Lipkin, *supra* note 23, at 329.

[72] *See, e.g.,* powell, *supra* note 62, at 1484 (stating that the "tensions between modernism and postmodernism are often framed in terms of essentialism and antiessentialism" and arguing that resolving this tension is not necessary to understand "intersectionalism's claim of a decentered nonunitary self").

[73] *See, e.g.,* Trina Grillo, *Anti-Essentialism and Intersectionality: Tools to Dismantle the Master's House,* 10 BERKELEY WOMEN'S L.J. 16, 19 (1995) (defining essentialism as "the notion that there is a single woman's, or Black person's, or any other group's experience that can be described as independently from other aspects of the person–that there is an 'essence' to that experience"); Note, *Patriarchy is Such a Drag: The Strategic Possibilities of A Postmodern Account of Gender,* 108 HARV. L. REV. 1973, 1973 (1995) (defining and criticizing essentialism's search to find to "common trait that unites all women and constitutes a core of a universal female identity"); *see also* IAN HACKING, THE SOCIAL CONSTRUCTION OF WHAT? 16 (1999) (stating that "[v]ery often essentialism is a crutch for racism"). Professor Hacking explained what "essentialism" means as applied to race:

> [E]ssentialism is an especially strong form of background assumption. . . . If a person's race is an essential element of a person's being, then race is not inevitable only in the present state of affairs. It is inevitable, period, so long as there are human beings . . . . Essentialists (usually more implicit than explicit in their beliefs) hold that one's race is part of one's essence,

Id.

[74] *See, e.g.,* Nan D. Hunter, *Expressive Identity: Recuperating Dissent for Equality,* 35 HARV. C.R.-C.L. L. REV. 1, 3 (2000). Professor Nan Hunter has described the antiessentialist perspective of postmodernism when considering the construction of identity:

> Postmodernist politics rejected both the modernist themes of individual autonomy and universal values, as well as the belief that identity politics claims were necessarily liberatory. The postmodern critique of identity politics asked: if identity claims are to be legitimate, who among the group gets to formulate and voice the substance of such claims? Antiessentialists caveats to easy notions of a unitary conception, for example, of "woman," or a single narrative or women's life experiences, complicated theories of equality. Postmodernism functioned in many respects as a dissent against certain features of identity politics, challenging identity orthodoxy and suggesting that overreliance on concepts like personhood

The difference between modernism's essentialism and postmodernism's antiessentialism was expressed in the contrasting views of feminists. Some early modernists feminists attempted to describe "woman" "by a preconceived and limited set of abstract characteristics, perspectives, or interests."[75] Essentialist theory failed because "it picked one pebble and asked it to represent all" women.[76] Later postmodern feminists challenged essentialism, contending that the studied "pebble" failed to include "women of color, lesbians, and poor women."[77] They proposed the theory of an "intersectional self,"[78] which was composed of multiple, contradictory selves that would arise depending upon the particular context.[79] In short, later feminists saw the self as fractured, "relational and fluid," and "strongly linked to context."[80]

> causes as many problems as it solves. Often this strain of criticism took the form of further specification of unrecognized identities.

Id.; *see also* powell, *supra* note 62, at 1497 (stating that postmodernists "tend to agree with the notion of the self as relational and fluid–dependent upon the context in which it exists").

[75] FELDMAN, *supra* note 37, at 160.

[76] Grillo, *supra* note 73, at 21.

[77] *Id.* (citing, *inter alia,* Angela P. Harris, *Race and Essentialism in Feminist Legal Theory,* 42 STAN. L. REV. 581, 585-602 (1990); AUDRE LORDE, SISTER OUTSIDER 110-13 (1984)); *see also* Katharine T. Bartlett, *Cracking Foundations as Feminist Method,* 8 AM. U. J. GENDER SOC. POL'Y & L. 31, 32 n.5 (2000) (collecting works that described the numerous approaches to feminism, including "equality stage," "difference stage," and "diversity stage," linking the latter to postmodernism).

[78] *See, e.g.*, Grillo, *supra* note 73, at 18 (rejecting the idea that the "situation of Black women is the composite of the situations of white women and Black men"; explaining that "we all stand at multiple intersections of our fragmented legal selves"); *see also* powell, *supra* note 62, at 1495-96 (relating the concept of intersectional self to postmodernism's view of a fractured and multiple self).

[79] powell, *supra* note 62, at 1495.

[80] powell, *supra* note 62, at 1497. Professor Grillo described well how we experience these multiple selves:

> Each of us in the world sits at the intersection of many categories: She is Latina, woman, short, mother, lesbian, daughter, brown-eyed, long-haired, quick-witted, short-tempered, worker, stubborn. At any one moment in time and in space, some of these categories are central to her being and her ability to act in the world. Others matter not at all. Some categories, such as race, gender, class, and sexual orientation, are important most of the time. Others are rarely important. When something or someone highlights one of her categories and brings it to the fore, she may be a domi-

Echoing this antiessentialism perspective is "outsider" or "other" jurisprudence.[81] This jurisprudence describes a person as an "other" when she feels "fragmented by society's dominant discourse."[82] As one scholar has noted, "[T]he experience of otherness . . . exists across time and culture as the inevitable product of social organization."[83] This jurisprudence has contended that those individuals who possessed power constructed legal doctrines from their own perspective, failing to question how other communities would view these doctrines.[84] The product of this power was a "legal system [that] has consistently functioned to create and perpetuate the privi-

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> nant person, an oppressor of others. Other times, even most of the time, she may be oppressed herself. She may take lessons she has learned while in a subordinated status and apply them for good or ill when her dominant categories are highlighted. For example, having been mistreated as a child, she may be either a carefully respectful or an abusive parent.

Grillo, *supra* note 73, at 17; *see also* Patterson, *supra* note 11, at 257 n.9 (stating that "postmodernism poses a threat to any form of feminist critique that issues from a perspective assuming or presupposing a position outside the (dominant) discourse of (gendered) law").

[81] For an excellent collection of articles in this genre, see CRITICAL RACE THEORY: THE CUTTING EDGE (Richard Delgado ed., 1995).

[82] powell, *supra* note 62, at 1491. Professor Powell has illustrated how one becomes an "other" by relating the story of a young girl, who first lived in a "Negro town" until age 13, and became a "little colored girl" when she went to school with white children. powell, *supra* note 62, at 1492 (quoting Zora Neale Hurston, *How It Feels to be Colored Me, in* I LOVE MYSELF WHEN I AM LAUGHING 152-53 (Alice Walker ed., 1979).

[83] Samuel A. Marcosson, *Constructive Immutability*, 3 U. PA. J. CONST. L. 646, 688 (2001).

[84] *See, e.g.,* Balkin, *supra* note 5, at 2374 (arguing that "we cannot understand how constitutional doctrine should be organized until we understand how society is organized"). Professor Jack Balkin has recognized the need for constitutional interpretation to recognize our diverse communities:

> [We need] to look carefully at the structure of the society in which we live, to identify social stratification where it exists, and to recognize the possible connections between the moral justifications that majorities offer and the preservation of their superior status . . . . Social hierarchies appear in many forms and degrees: We should not imagine that there is a single test or a single clause of the Constitution that can deal with all of them fully and adequately.

Balkin, *supra* note 5, at 2374; *see also* Tracey Maclin, *The Fourth Amendment on the Freeway*, 3 RUTGERS RACE & L. REV. 117, 129-30 (2001) (proposing rules for police officers in conducting traffic stops to check their bias against minorities).

lege of White males"[85] Outsider scholarship has reflected postmodernism's view of multiple communities by critically examining the privilege that whites and males have in society.[86] In addition, to discern this outsider or other, postmodernists have deconstructed texts.[87]

Resonating with the themes of antifoundationalism, antiessentialism and outsider jurisprudence is postmodernism's embracing of social construction theory[88] or "constructionism."[89] Under this theory, how we perceive the

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[85] powell, *supra* note 62, at 1483.

[86] See CRITICAL WHITE STUDIES: LOOKING BEHIND THE MIRROR (Richard Delgado and Jean Stefancic eds., 1997) for an excellent collection of articles examining the privileges that whites and males possess in our society. *See* Balkin, *supra* note 5, at 2321 (highlighting that "[c]ritical race scholars have repeatedly noted that white Americans have certain status privileges conferred on them merely by being white"). *See generally* Schanck, *supra* note 23, at 2588 n.331 (describing that some feminists adopting postmodern perspectives may sense an undermining of their "feminist goal of portraying male chauvinism as unalterably evil in nature;" stating that this conflict arises from their suspending "judgment about behavior in an effort to relate to or connect with others and to empathize with them").

[87] *See, e.g.*, J.M. Balkin, *Transcendental Deconstruction, Transcendent Justice*, 92 MICH. L. REV. 1131, 1137 (1994) (describing deconstruction's furthering justice by allowing communication with the outsider or other). *See also* Patterson, *supra* note 11, at 272-73:

> Postmodern approaches to language do not present arguments *against* the modern, representationalist view. Rather, postmodernist conceptions of the word-world relation see the modernist picture of propositional, representational truth as unintelligible–as a project that never gets off the ground. The focus of the dispute is the modernist theory of correspondence, specifically, the Sentence-Truth-World relation. To put it in a nutshell, the postmodern alternative replaces the modernist picture of Sentence-Truth-World with an account of understanding that emphasizes practice, warranted assertability, and pragmatism.

Id. (citations omitted).

[88] *See, e.g.,* LITOWITZ, *supra* note 4, at 12 (stating that postmodernists "assert that the self is a product of language and discourse, that it is 'decentered' . . . and that there is no core self"; adding that "postmodernists tend to hold that human behavior is socially constructed, molded by tradition and practices"). *See generally* HACKING, *supra* note 73, at 7 (stating that "[u]ndoubtedly the most influential social construction doctrines have had to do with gender").

[89] HACKING, *supra* note 73, at 39. Philosopher Ian Hacking finds redundant the phrase "social construction." HACKING, *supra* note 73, at 39 (stating that "[m]ost items said to be socially constructed could be constructed only socially, if they are constructed at all"; recommending using "social" only for "emphasis or contrast"). Because of his dissatisfaction with the phrase and its overuse, Hacking

"self" or a "subject" depends upon a person's particular community, its "social structures and cultural symbols."[90] A person does not have an "essence;"[91] nor does she choose her own ideology, but rather her community provides the "framework" for her choices.[92]

In attempting to limit or frame social construction theory, philosopher Ian Hacking[93] has argued that three aspects represent the "starting point" of social construction theory: (1) "the existence or character of *X* is not determined by the nature of things;" (2) "*X* is not inevitable;" and (3) "*X* was brought into existence or shaped by social events, forces history, all of which could well have well been different."[94] Ideas, theories and laws are obvious examples of social construction

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has recommended using the word "constructionism." HACKING, *supra* note 73, at 48.

[90] FELDMAN, *supra* note 37, at 174; *see also* Marcosson, *supra* note 83, at 684 (noting that "there is widespread acceptance of the premise that concepts of self are culture-dependent"). Professor Samuel Marcosson has linked self-concept to cultural experiences by relying on the works of cognitive psychologists and sociologists:

> [T]he very notion of self-understanding as affected by cultural context understates the importance of context: "the very core of self-understanding is constructed through, and reflects on, social interactions. Rather than understanding the self *in* cultural context or situating the self *in* interpersonal space, we argue for understanding the self *as* a social-cultural process.

Marcosson, *supra* note 83, at 683-84 (quoting Robyn Fivush & Janine Buckner, *The Self as Socially Constructed: A Commentary, in* THE CONCEPTUAL SELF IN CONTEXT 176 (Urlric Neisser & David Jopling eds., 1997).

[91] FELDMAN, *supra* note 37, at 175.

[92] FELOMAN, *supra* note 37, at 174; *see also* Marcosson, *supra* note 83, at 687 (describing the labels "masculine" and "feminine" as social constructs and noting that "some traits or roles might be (and often are) masculine in one culture and feminine in another"). *But see* Todd Zywicki, *Evoluntionary Psychology and the Social Sciences*, 13 HUMANE STUD. REV. 1, ¶ 10 (2000), *available at* http://libertyguide.org/libertyguide/hsr/hsr/php/36.html (rejecting the *tabula rasa* theory, the idea of "blank personalities subject to molding by social, cultural, legal, political, and economic forces economic focus theory," as "Darwinism from the neck up" (citing Todd J. Zywicki, *The Nature of the State and the State of Nature: A Comment on Grady and McGuire,* 1 J. BIOECONOMICS, 241 (1999).

[93] *See* HACKING, *supra* note 73, at 19 (stating sarcastically that "[s]ocial construct is code for not universal, not part of pan-cultural human nature, and don't tread on me with those heavy hegemonic [racist, patriarchal] boots of yours").

[94] HACKING, *supra* note 73, at 6-7.

because we easily discern that a particular society shaped them, for example, the cultural view of what constitutes "child abuse,"[95] legal requirements for citizenship[96] or the establishing of a speed limit on a highway.[97] What social construction theory is about is describing the areas that people do not easily perceive as socially created.[98] For example, social construction theory has examined race,[99] gender, identity and the idea of objective reason, viewing these as products of our culture.[100] Under this theory, Hacking discerns six different uses of social construction theory: to reflect interest in history, to be ironic, to either reform or unmask society's beliefs, to rebel or to revolt.[101] Ironically, postmodernism itself is a social construction.[102]

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[95] *See, e.g.*, HACKING, *supra* note 73, at 146 (stating that "a great deal of behavior that we hold intrinsically loathsome and terribly harmful to children is merely venial or even encouraged in other cultures"; and adding that "[c]hild abuse, as diagnostic and political concept, has chiefly been a phenomenon of the English-speaking world, with the United States as almost the only source of conceptual innovation"); J. Robert Shull, *Emotional and Psychological Child Abuse: Notes on Discourse, History, and Change*, 51 STAN. L. REV. 1665, 1697 (1999) (describing the legal concept of child abuse as moving from a medical perspective to perspectives embraced by "psychologists and sociologists").

[96] Marcosson, *supra* note 83, at 688-89 (describing citizenship as a social construct, one rooted in "political, social, historical, legal, and economic forces on geography").

[97] *See, e.g.*, Charles W. Collier, *Law as Interpretation*, 76 CHI.-KENT L. REV. 779, 781 (2000) (stating that "without our current, contingent mix of legal practices and institutions, there would be no such thing as a speed limit at all").

[98] *See* HACKING, *supra* note 73, at 12 (stating that "[i]f "everybody knows that *X* is the contingent upshot of social arrangements, there is no point in saying that it is socially constructed"). Social construction theory may unmask that which is hidden. HACKING, *supra* note 73, at 20.

[99] *See, e.g.*, NOEL IGNATIEV, HOW THE IRISH BECAME WHITE 1 (1995) (rejecting biology as a means to identify race by describing the following "absurdit[y]": "a white woman can give birth to a black child, but a black woman can never give birth to a white child"; adding that "people are members of different races because they have been assigned to them"); Daniel G. Blackburn, *Why Race Is Not a Biological Concept*, *in* RACE & RACISM IN THEORY & PRACTICE 3, 7 (Berel Lang ed., 2000) (rejecting the biological construction of race, claiming that it is as reliable as referring to "a genetic background that is 'Californian,' 'Episcopalian,' or 'Republican'"); Jane Maslow Cohen, *Race-Based Adoption in a Post-*Loving *Frame*, 6 B.U. PUB. INT. L.J. 653, 669 (1997) (noting that social construction theory views the "indeterminacy of race," with "interracial marriage and interracial reproduction . . . intimidating the concept of race"); Ian F. Haney Lopez, *The Social Construction of Race: Some Observations on Illusion, Fabrication, and Choice*, 29 HARV. C.R.-C.L. L. REV. 1, 7 (1994) (defining "race" as "a vast group of people loosely bound together by historically contingent, socially significant elements of their morphology an/or ancestry" and stating that "race must be understood as a *sui generis* social phenomenon in which contested systems of meaning serve as the connections between physical features, races, and personal characteristics").

[100] *See, e.g.*, HACKING, *supra* note 73, at 33 (viewing social constructionists as

Social construction theory is also intertwined with another postmodern theme–the view that texts have multiple meanings because different communities construe them.[103] For the postmodernist, "meaning is determined by the interpretative conventions of the community."[104] Because society has many different communities, we will have multiple constructions, whether of texts, identities or social norms.[105] Many of postmodernism's themes have roots in the perception of multi-

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believing that "classifications are not determined by how the world is, but are convenient ways in which to represent it"); LITOWITZ, *supra* note 4, at 11 (stating that postmodernists would argue that "reason is not a uniform faculty of all humankind but rather is socially constructed; it is always situated within existing practices and discourses, and it will therefore be biased or slanted in favor of existing power relations").

[101] HACKING, *supra* note 73, at 33.

[102] *See, e.g.*, Schanck, *supra* note 23, at 2581 (stating that postmodernists recognize that their positions are socially constructed).

[103] *See, e.g.,* Patterson, *supra* note 11, at 274 (stating that the "postmodern approach to language eschews advancing explanations in favor of describing localized linguistic practices"); Schanck, *supra* note 23, at 2514 (stating that postmodernism attracts both right-wing as well as left-wing ideals). Professor Schanck has linked "two strains"–poststructuralism and neopragmatism–which, though different, share a common view of language because of social construction theory. Schanck, *supra* note 23, at 2514. Poststructuralism emphasizes "the role of language and language's underlying structures in shaping our understandings of reality and texts," and "neopragmatism emphasizes the social construction of knowledge and language." Schanck, *supra* note 23, at 2514. Schanck has noted the paradox of poststructuralism's view that "there is nothing outside of the text" and neopramatism's view "that there is no text," other than the one we create "through our preexisting, socially derived interpretations." Schanck, *supra* note 23, at 2515 (quoting JACQUES DERRIDA, OF GRAMMATOLOGY 158 (Gayatri Chakravorty Spivak trans., 1976). He has characterized the link as rooted in social construction theory: "[o]ur perspectives on the world are culturally and linguistically conditioned, that reality is never transparent to us, and that the content of our knowledge depends on our different situations." Schnack, *supra* note 23, at 2515.

[104] *See, e.g.,* Schanck, *supra* note 23, at 2547.

[105] *See, e.g.,* FELDMAN, *supra* note 37, at 165 (stating that "the Other refers not only to suppressed textual meanings but also to marginalized and subjugated individuals and groups (outgroups)–those individuals and groups whose meanings (or voices) are obscured or ignored").

plicity because postmodernism discerns communities creating different constructions. Postmodernism rejects a "true" interpretation of a text,[106] just as it rejects a "true" foundation for legal analysis, or a "true" view of gender[107] or identity.[108] As a result, when a postmodernist reads a text, the restraints on interpretation arise from the community's conventions. For example, when interpreting law, judges employ the conventions of the legal profession.[109] These conventions reflect a particular community's passions and prejudices.[110] In addition, each community will perceive that it discerned "*the* correct and appropriate standards, not just one arbitrary set among many acceptable alternatives."[111] In the end, "the intricate concepts and methodologies of deconstruction are themselves only social constructions, with no more right to privileged status than any other."[112]

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[106] Schanck, *supra* note 23, at 2547 (stating that because "[t]here can be no single correct interpretation of any text," there is also no single correct evaluation of "the practices, goals, morals, values, and norms of any institution or community").

[107] *See, e.g.*, Patterson, *supra* note 11, at 295 (stating that "[p]ostmodernism's singular contribution to feminism has been to raise the stakes in the sameness-difference debate"). Professor Patterson has examined the work of postmodernist Ziallah Eisenstein and noted that "all questions of difference are simply a matter of one's own view" and that "their significance must remain open-textured." *Id.* at 297 (quoting ZILLAH R. EISENSTEIN, THE FEMALE BODY AND THE LAW 35 (1988)).

[108] *See, e.g.,* Patterson, *supra* note 11, at 276-77 (stating that postmodernism "challenges the primacy of the individual"; postmodernism "casts the individual not as the subject in control of discourse, but as an artifact produced by discourse").

[109] *See, e.g.,* Schanck, *supra* note 23, at 2545-46; *see also* Pierre Schlag, *Clerks in the Maze,* 91 MICH. L. REV. 2053, 2054 (1993) (noting that "[j]udges must destroy the worlds of meaning that others have constructed" and that they used the traditional "'rules,' 'doctrines,' and 'principles'" to mask their "highly self-interested constructions").

[110] *See, e.g.,* FELDMAN, *supra* note 37, at 165 (stating that "[w]henever we understand a text from within our own horizon–which is the only way to understand a text–we necessarily deny potential meanings that might arise from some other perspective or horizon"); Brice R. Wacheterhauser, *Prejudice and Reason, in* HATRED, BIGOTRY, AND PREJUDICE: DEFINITIONS, CAUSES, AND SOLUTIONS 155, 157 (1999) (stating that "the role of prejudice in cognition seems to render the ideal of a fully *explicit* procedure impossible to achieve" because "an *implicit* element is always involved inexorably in any method"). *See generally* Schanck, *supra* note 23, at 2556 n.209 (noting that "multiculturalism . . . involves a recognition that various racial and ethnic groups constitute different interpretative communities with different assumptions, conventions, and implicit values").

[111] Schanck, *supra* note 23, at 2548.

These broad themes of postmodernism emphasize the ever-shifting role communities play in creating society. They highlight how communities construct foundations that reflect their particular viewpoints, from creating (or ignoring) race as a type of identity to interpretive principles for examining laws. Underlying these themes is the contingency of social construction: what we create depends upon the community at a particular time in history. These postmodern perspectives help to explain the United States Supreme Court's shifting constructions what constitutes a "search" police practice under the Fourth Amendment.

II. COURT'S CONSTRUCTIONS OF A FOURTH AMENDMENT "SEARCH"

When the United States Supreme Court decides a Fourth Amendment issue, it frames its decision by using rationales embraced by the communities of lawyers, judges and some scholars. To date, the Court has not released an opinion stating, "We decide the case today this way because to do so is simply good policy." Granted it may add such a statement *after* offering other arguments to support its decision,[113] but the way in which it talks about the Fourth Amendment issue depends upon which rhetorical arguments it selects from the communities' package of acceptable arguments. From a postmodernist's perspective, the Court could have offered several different justifications to support its holding, and the Court could have decided many cases differently. In short, multiple paths for decisionmaking are possible, and the Court's jurisprudence in defining a Fourth Amendment

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[112] Schanck, *supra* note 23, at 2572.

[113] *See, e.g.*, Camara v. Mun. Court, 387 U.S. 523, 533 (1967). In *Camara*, the Court examined and rejected many arguments for allowing warrantless administrative searches. It concluded by stating that "of course, in applying any reasonableness standard, including one of constitutional dimension, an argument that the public interest demands a particular rule must receive careful consideration." *Camara*, 387 U.S. at 533. After considering what would constitute sound public policy, the Court concluded that it did "not find the public need argument dispositive." *Id.*

"search" reveals these different approaches.

In defining a Fourth Amendment "search," the Court has familiar rhetorical tools at hand: textual arguments,[114] historical arguments,[115] structural arguments,[116] arguments arising from precedents and explicit policy arguments.[117] Because the legal community has never stated that one type of argument always trumps another type of argument, the Court is able to wander down different paths simply by relying on a different category to decide a similar issue. In addition, within each category, the Court has a variety of arguments to support its decision. For example, the Court may selectively cite cases to support its position; it may distinguish other cases by creating a new gloss on prior cases that it now finds constitutionally sufficient; it may overrule prior cases or it may trash some but not all of its prior cases by retaining the "essential holding" of a prior cases. The Court may also blend these constructed categories by weaving them together, as in looking to history to illuminate what it discerns the text to mean. With these diverse and contrasting rhetorical arguments, the Court gets to choose how to frame and resolve a decision.[118]

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[114] *See, e.g.,* Tracey Maclin, *What Can Fourth Amendment Doctrine Learn from Vagueness Doctrine?* 3 U. PA. J. CONST. L. 398, 401 (2001) ("Despite an explicit reference in the Constitution's text that limits governmental intrusions, the Court's Fourth Amendment cases regularly allow police broad discretion in conducting searches and seizures. At the same time, the Court's vagueness cases have invalidated criminal statutes—even when they do not directly affect any enumerated right–when the statutes grant police too much discretion.").

[115] *See, e.g.,* Morgan Cloud, *Searching through History; Searching for History*, 63 U. CHI. L. REV. 1707, 1709 (1996) (noting that "[l]awyers writing briefs, judicial opinions, and scholarly commentaries tend to treat history as but one more source of evidence to be deployed in support of their arguments"). After examining Fourth Amendment histories, Cloud warned "constitutional decision makers [to] be skeptical when lawyers claim to have discovered the Amendment's precise meaning in its complex history." *Id.* at 1746-47. For Cloud, the history of the Fourth Amendment can nevertheless offer "broad background principles favoring privacy, property, and liberty." *Id.* at 1747. He concluded, "Ultimately, we do have to make up our own minds about what the law will be in this time and in this place." *Id. see also* David A. Sklansky, *Back to the Future:* Kyllo, Katz, *and Common Law*, 72 MISS. L.J. 143, 162 (2002) (highlighting the Court's inconsistent consideration of history: the "'new Fourth Amendment originalism' . . . was obviously in considerable tension with the modernizing ahistorical approach of *Katz* and *Terry*") (quoting David A. Sklansky, *The Fourth Amendment and Common Law,* 100 COLUM. L. REV. 1739, 1744 (2000)).

[116] Raymond Shih Ray Ku, *The Founder's Privacy: The Fourth Amendment and the Power of Technological Surveillance after* Kyllo, 86 MINN. L. REV. 1325, 1328 (2002). By invoking a structural perspective, one linked to separation of powers concerns, Professor Ku has argued against the Court's "removing entire categories of searches from Fourth Amendment scrutiny." *Id.* He has contended that "new surveillance technologies must be treated as searches subject to Fourth Amendment restraints" in light of "the doctrine of separation of powers." *Id.* at 148. For Professor Ku, this view of the Fourth Amendment would "protect the public from arbitrary and unrestrained executive power." *Id.*

[117] *See, e.g.,* James J. Tomkovicz, California v. Acevedo: *The Walls Close In On the Warrant Requirement*, 29 AM. CRIM. L. REV. 1103, 1141-60 (1992) (examining policy arguments in support and in opposition to police officers' need to obtain warrants in a variety of circumstances). Professor Tomkovicz distinguished "policy" arguments from "symbolic arguments," which he characterized as an examination of "which symbols and messages are more compatible with the kind of society our ancestors envisioned." *Id.* at 1162. He recognized that "[o]ur choices will undoubtedly be influenced by the symbols we see and the messages we hear" and that "neither choice is incontrovertible." *Id.* at 1163.

In deciding whether the challenged conduct was a "search" within the meaning of the Fourth Amendment, the Court's initial basis was property law; it then characterized privacy as an essential component of determining whether a "search" had occurred. In its move from property to privacy, the Court cited language in old cases to make its shift to appear less jarring. The Court's broadly written 1886 decision in *Boyd v. United States,* for example, has given the Court language to select and focus on at different times. The *Boyd* Court discussed "the very essence of constitutional liberty and security," the need to protect the "sanctity of a man's home and privacies of life" and an "indefeasible right of personal security, personal liberty and private property."[119] Later the Court repeatedly referred to the Fourth Amendment as protecting "personal security," generally not to define a "search,"[120] but rather to describe an individual's interest protected by the Fourth Amendment.

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[118] *See, e.g.,* Morgan Cloud, *The Fourth Amendment During the* Lochner *Era: Privacy, Property, and Liberty in Constitutional Theory,* 48 STAN. L. REV. 555, 583 (1996) (noting that even judges operating from a "formalist" perspective may ascribe "alternative outcomes for the same event."). *Id.* at 583. For Cloud, different outcomes are possible because a "decisionmaker may conclude that the properties suppressed by a particular rule are relevant to the events in the instant case, and choose to apply an alternative rule that emphasizes those relevant characteristics while suppressing others accentuated by the rejected rule." *Id.*

[119] Boyd v. United States, 116 U.S. 616, 630 (1886).

[120] *See, e.g.,* Johnson v. United States, 333 U.S. 10, 17 n.8 (1948). In *Johnson,*

The categories of property and privacy (as well as personal security and liberty) from a postmodernist's view have permeable and overlapping boundaries, allowing us to understand the Court's shifting rhetorical groundings. In the end, even though we may view the Court's paths in defining a "search," we are not certain as to what a particular path means when the facts under consideration are different from decided cases; we do not know how long the Court will stay on that road, nor do we know what the next road looks like and what its application will mean under the Fourth Amendment. What we do know is that the Court, like academic scholars, offers arguments for constructing the meaning of the Constitution, which is all it can do.

A. *Constructing the Fourth Amendment with a "Property" Foundation*

The Court first extensively examined the Fourth Amendment in *Boyd v. United States.*[121] At issue was a government's subpoena, issued pursuant to a statute, compelling a company to produce an invoice to show the purchase of goods for which it had not paid duties.[122] The statute provided that if the company did not produce the papers, the government's allegations were deemed true, allowing civil

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the Court cited a 1921 decision broadly describing the rights protected by the Fourth and Fifth Amendments to the United States Constitution:

> The effect of [our] decisions cited is: that such rights are declared to be indispensable to the "full enjoyment of personal security, personal liberty and private property"; that they are to be regarded as of the very essence of constitutional liberty; . . . these Amendments should receive a liberal construction, so as to prevent stealthy encroachment upon or "gradual depreciation" of the rights secured by them, by imperceptible practice of courts or by well-intentioned but mistakenly over-zealous executive officer.

Johnson, 333 U.S. at 17 n.8 (quoting Gouled v. United States, 255 U.S. 303, 304 (1921)). *But see* Terry v. Ohio, 392 U.S. 1, 16 (1968) (declaring that "a careful exploration of the outer surfaces a person's clothing all over his or her body in at attempt to find weapons" is a search and noting such a frisk is a "serious intrusion upon the sanctity of the person").

[121] 116 U.S. 616 (1886). For a brief discussion of the Court's prior references to the Fourth Amendment, see Cloud, *supra* note 118, at 573 n.77.

[122] *Boyd*, 116 U.S. at 617-18.

forfeiture of the allegedly purchased goods.[123] In determining that this compulsory process of private papers was an "*unreasonable* search and seizure,"[124] the Court did not define what constituted a "search" or "seizure,"[125] but it did describe a "right" protected by the Fourth Amendment: the "right of personal security, personal liberty, and privacy property, where that right has never been forfeited by his conviction for some public offence."[126] Yet, in deciding the case, the Court focused on property law.[127]

The *Boyd* Court distinguished between property in which the government was entitled to possess and that which is it was not. Lawful possession lay in the "seizure of stolen goods,"[128] "seizure of goods forfeited a breach of revenue laws"[129] and "goods seized on attachment."[130] Unlawful possession in this case arose from compelling a person to produce "private" papers. The Court stated that the "two things differ *toto coelo*."[131] The Court thus constructed classes and stated that the classes were different, a classic rhetorical tool.

To justify its distinctions, the Court cited another classic rhetorical tool–framer's intent.[132] The Court stated that its property class distinctions derived from the "contemporary or then recent history," which had condemned the earlier English practices of using writs of assistance and general warrants. Writs of assistance arbitrarily gave officials great discretion to search for smuggled goods[133] and general warrants, which similarly allowed officials to search for private papers.[134] The Court stated that these oppressive practices "were in the minds of those who framed the Fourth Amendment to the Constitution, and were considered sufficiently explanatory of what was meant by unreasonable searches and seizures."[135]

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[123] *Id.* at 621-22.

[124] *Id.* at 622.

[125] *Id.* (implying that "compulsory production of a man's private papers" was "equivalent" to a "search and seizure").

[126] *Id.* at 630.

[127] *Id.* at 623-24. Professor Morgan Cloud has differently characterized the Fourth Amendment foundation that the Court created in *Boyd* by viewing the decision through the lens of its era–*Lochner v. New York,* 198 U.S. 45 (1908). Cloud, *supra* note 118, at 580. Cloud strongly emphasized the Court's explicit references to "liberty" and acknowledged a role for implicit linking of property interests with an individual's interest in "liberty" or "personal autonomy." Cloud, *supra* note 118, at 580. He explained that "the *Boyd* decision is provocative precisely because it defined this realm of personal autonomy largely in terms of property rights." Cloud, *supra* note 118, at 580. Earlier, however, he noted that such categories are not discrete: "Personal security, liberty, and private property are not discrete interests; they unite to define significant attributes of individual freedom in the democracy." Cloud, *supra* note 118, at 576. *See generally* AKHIL REED AMAR, THE CONSTITUTION AND CRIMINAL PROCEDURE: FIRST PRINCIPLES 23 (1997) (criticizing *Boyd* for its embracing of "property worship").

[128] *Boyd*, 116 U.S. at 623.

[129] *Id.*

[130] *Id.* at 624.

[131] *Id.* at 623.

The Court proceeded to link the Fourth Amendment to trespass law. It quoted Lord Camden, who had authored English opinions celebrated by both the English and the colonists.[136] In these opinions liberty meant having secure property interests.[137] According to the Court, Lord Camden stated, "[p]apers are the owner's goods and chattels; they are his dearest property."[138] Although Camden declared that the "eye cannot by the laws of England be guilty of a trespass,"[139] the compulsory production of papers is like the "[b]reaking into a house and opening boxes and drawers."[140] The *Boyd* Court thus viewed the Fourth Amendment as protecting "sacred right"[141] of property, which also encompassed "personal security and personal liberty."[142]

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[132] *See, e.g.,* Lipkin, *supra* note 23, at 368 n.159 (stating that "[i]f originalism contends that it is the correct methodology because the Framers intended it to be, the argument is circular;" adding that even if the Constitution contained a clause that the "Framer's intent should control," the clause would still be subject to different interpretations, one linked to nontextaul arguments, such as "the correct political theory"). With a different casting of history, Professor White, however, can envision history as an interpretative "restraint:"

> One might argue that with the loss of objectivity there is nothing to prevent present actors from creating their own versions of history, designed to conform to or reinforce their contemporary agendas. But that argument is itself modernist-inspired. It proceeds from a conception of time as segmented, in which actors in the "present" have a discretely different experience and set of attitudes from actors in the past, and more fundamentally, in which actors in the present are capable of overwhelming or wholly erasing their past. . . . [C]ontemporaries, [however,] *cannot escape* the set of attitudes and experiences that defines their existence as occupants of a particular moment in time.

See White, *supra* note 69, at 619-20. This type of "restraint," however, has not lead to a uniform construction of history, as well explained by Professor White, as he examined the different constructions of history by critical legal scholars and "originalists." White, *supra* note 69, at 580-96.

[133] *Boyd*, 116 U.S. at 625.

[134] *Id.* at 626.

[135] *Id.* at 626-27.

[136] *Id.* at 626.

[137] *Id.* at 627 (quoting Camden as stating that the "'great end for which men entered into society was to secure their property' and that even the 'bruising the grass' may be a trespass if a person offers no justification") (citation omitted).

After *Boyd*, the Court continued to interpret the Fourth Amendment through the lens of property law.[143] Yet, when trespass law did not address the government's access to intangible information, such as telephone conversations, the Court in *Olmstead v. United States*[144] had to decide whether wire tapping constituted a "search" or "seizure" protected by the Fourth Amendment. In 1928, with the Court's property perspective of the Fourth Amendment, it held that tapping telephone conversations did not constitute a "search" or "seizure."[145]

To justify its interpretation, the Court viewed the language of the Fourth Amendment to indicate no protection because it listed "material things–the person, the house, his papers, or his effects."[146] The Warrant Clause, the Court added, similarly referred to tangibles capable of being seized. In addition, officials installed the wire taps without trespassing on the criminal defendants' property,[147] and they acquired evidence "by the use of the sense of hearing and that only."[148] For the Court, it could not "enlarge[]" the language of the Fourth Amendment to "forbid hearing or sight."[149]

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[138] *Id.* at 627-28.

[139] *Id.* at 628.

[140] *Id.* at 630.

[141] *Id.*

[142] *Id.*

[143] Thomas K. Clancy, *What Does the Fourth Amendment Protect: Property, Privacy, or Security?*, 33 WAKE FOREST L. REV. 307, 314-20 (1998); Cloud, *supra* note 118, at 581.

[144] 277 U.S. 438 (1928), *overruled in part* by Katz v. United States, 389 U.S. 347 (1967), and Berger v. New York, 388 U.S. 41 (1967).

[145] Olmstead v. United States, 277 U.S. 438, 466 (1928).

[146] *Olmstead*, 277 U.S. at 464.

[147] *Id.* at 457.

To further support its holding, the Court stated that officials' of violations of trespass laws may not be sufficient to implicate the Fourth Amendment.[150] It cited a prior decision in which it had held that viewing activities in an open field, even if accomplished by a trespass, did not constitute a "search of person, house, papers, or effects."[151]

For its interpretive grounding, the *Olmstead* Court also quoted a passage from the 1925 decision of *Carroll v. United States*,[152] the same passage that the modern Court had repeatedly quoted,[153] paraphrased[154] or distorted.[155] "The

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[148] *Id.* at 464.

[149] *Id.* at 465.

[150] *Id.*

[151] *Id* (citing Hester v. United States, 265 U.S. 57 (1924)).

[152] 267 U.S. 132 (1925).

[153] *See, e.g.*, Florida v. White, 526 U.S. 559, 563 (1999) (authored by Justice Thomas).

[154] *See, e.g.*, Wilson v. Arkansas, 514 U.S. 927, 931 (1995) (authored by Justice Thomas) (stating that "'[a]lthough the underlying command of the Fourth Amendment is always that searches and seizures be reasonable,' *New Jersey v. T.L.O.*, 469 U.S. 325, 337 (1985), our effort to give content to this term may be guided by the meaning ascribed to it by the Framers of the Amendment").

[155] *See, e.g.,* Atwater v. City of Lago Vista, 532 U.S. 318, 326 (2001) (authored by Justice Souter) (stating that "[i]n reading the Amendment, we are guided by 'the traditional protections, against unreasonable searches and seizures afforded by the common law at the time of framing,' *Wilson v. Arkansas*, 514 U.S. 927, 931 (1995) . . . since '[a]n examination of the common-law understanding of an officer's authority to arrest sheds light on the obviously relevant, if not entirely dispositive consideration of what the Framers of the Amendment might have thought to be unreasonable,' *Payton v. New York*, 445 U.S. 573, 591 (1980)"). In *Atwater*, Justice O'Connor dissented, allowing Justice Souter the opportunity to criticize her for not invoking her prior practice of using the common law to assess reasonableness. *Atwater*, 532 U.S. at 345 n.14. Justice O'Connor previously dissented from the Court's rejection of the common-law rule that allowed officers to shoot fleeing felons. Tennessee v. Garner, 471 U.S. 1, 26 (1985) (O'Connor, J., dissenting).

See also Wyoming v. Houghton, 526 U.S. 295, 299-300 (1999) (authored by Justice Scalia) (stating that "we inquire first whether the action was regarded as an unlawful search or seizure under the common law when the Amendment was framed. . . . Where that inquiry yields no answer, we must evaluate the search or seizure under traditional standards of reasonableness. . . ."); Vernonia Sch. Dist. 47J v. Acton, 515 U.S. 646, 652-53 (1995) (authored by Justice Scalia) (stating that "where there was no clear practice, either approving or disapproving the

Fourth Amendment is to be construed in the light of what was deemed an unreasonable search and seizure when it was adopted[,] and in a manner which will conserve public interests, as well as the interests and rights of individual citizens."[156] Although the Court did not elaborate on the significance of common law, it did state that the language of the Fourth Amendment acted as a restraint.

It then offered a perspective that it would later discard under a different Fourth Amendment paradigm: "The reasonable view is that one who installs in his house a telephone instrument . . . intends to project his voice to those" outside his house.[157] In contrast, Justice Brandeis in his dissent rejected this construction, inviting the Court to interpret the Fourth Amendment with an appreciation of the government's growing investigative capacities.[158] He invoked the words of Chief Justice John Marshall, exclaiming "[w]e must never forget that it is a constitution we are expounding,"[159]"a malleable statement that ironically permits both broad and narrow interpretations of the Constitution.[160] In

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type of search at issue, at the time the constitutional provision was enacted, whether a particular search meets the reasonableness standard 'is judged by balancing its intrusion on the individual's Fourth Amendment interests against its promotion of legitimate governmental interests'" (quoting Skinner v. Ry. Labor Exec. Ass'n, 489 U.S. 602, 619 (1989), which quoted Delaware v. Prouse, 440 U.S. 648, 654 (1979)). *But see* Wyoming v. Hougton, 526 U.S. at 311 n.3 (Stevens, J., dissenting) (stating that "[t]o my knowledge, we have never restricted ourselves to a two-step Fourth Amendment approach wherein the privacy and governmental interests at stake must be considered only if 18th-century common law 'yields no answer'").

[156] *Olmstead*, 277 U.S. at 465 (quoting Carroll v. United States, 267 U.S. 132, 149 (1925)).

[157] *Id.* at 466.

[158] *Id.* at 472-73 (Brandeis, J., dissenting).

[159] *Id.* at 472 (quoting M'Culloch v. State, 17 U.S. 316, 407 (1819)).

[160] Supreme Court Justices have often quoted this famous phrase from *M'Culloch*, sometimes to limit the government's power and liability and sometimes to expand the government's power and liability. *See, e.g.,* Alden v. Maine, 527 U.S. 706,807 (1999) (Souter, J., dissenting) (rejecting constitutional sovereign immunity for states in state courts and declaring that since *M'Culloch* the "Court has repeatedly sustained the exercise of power by Congress, under various clauses of [the Constitution], over objects of which the Fathers could not have dreamed"); County of Sacramento v. Lewis, 523 U.S. 833, 846 (1998) (stating that "only the most egregious official conduct can be said to be 'arbitrary in the constitutional

his dissent, Justice Brandeis looked to Marshall's words to underscore the need to apply the Fourth Amendment to contexts not imaginable in 1791: "Clauses guaranteeing to the individual protection against specific abuses of power, must have a similar capacity to adaptation to a changing world."[161]

This property-based perspective of the Fourth Amendment thus raised property-framed issues: whether the government had searched and seized a tangible item, whether an "area" had constitutional protection,[162] and if so, whether the governmental officials trespassed by "physical invasion." As time passed, the Court's property-framed issues were sometimes dispositive[163] and sometimes merely relevant.[164] The

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sense'") (citation omitted); Daniels v. Williams, 474 U.S. 327, 332, (1986) (Justice Rehnquist's opinion holding that negligent governmental conduct does not implicate the Fourteenth Amendment and stating that "[o]ur Constitution deals with the larger concerns of the governors and the governed, but it does not purport to supplant traditional tort law in laying down rules of conduct to regulate liability for injuries that attend living together in society"); Oliver v. United States, 466 U.S. 170, 188 (1984) (Marshall, J., dissenting) (stating "[T]he Court's contention that, because a field is not a house or effect, it is not covered by the Fourth Amendment is inconsistent with [precedent] . . . and with the understanding of the nature of constitutional adjudication from which it derives"); Nixon v. Fitzgerald, 457 U.S. 731, 758-59 (1982) (Burger, J., concurring) (deriving absolute immunity for presidential actions from the "constitutional doctrine of separation of powers" and stating that "[c]onstitutional adjudication often bears unpalatable fruit"); Univ. of Cal. v. Bakke, 438 U.S. 265, 407 (1978) (Blackmun, J., concurring and dissenting) (inviting the Court to consider the "real world" of racial discrimination and explaining that "[i]n order to treat some people equally, we must treat them differently"); Paul v. Davis, 424 U.S. 693, 732 (1976) (Brennan, J., dissenting) (arguing for a broader definition of liberty or property under the Fourteenth Amendment to safeguard a person's interest in reputation).

[161] *Olmstead*, 277 U.S. at 472.

[162] *See, e.g.*, Silverman v. United States, 365 U.S. 505, 512 (1961) (stating that warrantless use of a spike microphone was unconstitutional, not because of trespass law, but rather because of "the reality of an actual intrusion into a constitutionally protected area").

[163] *See, e.g.*, Lanza v. New York, 370 U.S. 139, 143 (1962) (stating that prison cell is not a constitutionally protected area because it "shares none of the attributes of privacy of a home, an automobile, an office, or a hotel room"); On Lee v. United States, 343 U.S. 747, 751 (1952) (stating that "no trespass had been committed" by officers using concealed microphone while in defendant's laundry).

[164] *See, e.g.*, Wong Sun v. United States, 371 U.S. 471, 485-86 (1963) (refusing to distinguish between "verbal evidence" and the "more common tangible fruits of [an] unwarranted intrusion"); *Silverman*, 365 U.S. at 512 (stating that the "deci-

Court's shifting emphasis of issues allowed the property-based foundation to slowly crack.

This movement is discernible by comparing the Court's 1942 decision in *Goldman v. United States*[165] with its 1961 decision in *Silverman v. United States.*[166] In *Goldman,* the Court relied on *Olmstead* to exclude oral statements from protection when officials, without a warrant, gathered information by using a listening device attached to a wall, but in *Silverman* granted protection to oral statements when officials, also without a warrant, used a microphone to puncture a baseboard and listen.[167] In both cases, the Court refused to overrule *Omstead,*[168] but in *Silverman*, the Court's language reflected the tension in its constructed property foundation; it declared, "Inherent Fourth Amendment rights are not inevitably measurable in terms of ancient niceties of tort or real property law."[169] The Court, however, did not completely discard history, but selected that part related to the home. It noted the "long history"[170] of protecting a person's interest in the home, language that is also reflective of more modern decisions:

> A man can still control a small part of his environment, his house; he can retreat thence from outsiders, secure in the knowledge that they cannot get at him without disobeying the Constitution. That is still a sizable hunk of liberty–worth protecting from encroachment. A sane, decent, civilized soci-

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sion here does not turn upon the technicality of a trespass upon a party wall as a matter of local law"; determining technical intrusion of a "constitutionally protected area").

[165] *See, e.g.*, Goldman v. United States, 316 U.S. 129 (1942) (holding that Fourth Amendment not implicated by governmental officials' use of a device attached to a wall to listen to a conversation).

[166] *See, e.g.*, *Silverman*, 365 U.S. at 511 (holding that officials' warrantless use of a microphone with a foot-long spike to puncture a baseboard, allowing the heating duct to act as "a conductor of sound," violated the Fourth Amendment).

[167] *Id.*

[168] *Id.* at 508 (determining no need to re-examine *Olmstead* in "light of recent and projected developments in the science of electronics"); *Goldman*, 316 U.S. at 136 (stating that reconsideration of *Olmstead* "would serve no good purpose").

[169] *Id.* at 511.

[170] *Id.*

> ety must provide some oasis, some shelter from public scrutiny, some insulated enclosure, some enclave, some inviolate place which is a man's castle.[171]

Recognizing its incremental changes, the *Silverman* Court stated, "We find no occasion to re-examine *Goldman* here, but we decline to go beyond it, even by a fraction of an inch."[172]

Later the Court would look at these cases and others,[173] stating that they had "eroded"[174] a property foundation for the Fourth Amendment.[175] In a series of three decisions issued in 1967—*Warden v. Hayden*,[176] *Berger v. New York*,[177] and *Katz v. United States*,[178]—the Court looked back and viewed the foundation with a different perspective: the Fourth Amendment also protects an individual's interest in privacy.[179] In characterizing its decisions as a "shift in emphasis from property to privacy,"[180] the Court did not completely abandon historical perspectives of property.[181] Instead, it sought to bring privacy interests into the forefront, a move that both afforded governmental officials greater investigative means and gave individuals "the remedy of suppression."[182]

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[171] *Id.* at 511 n.4 (quoting United States v. On Lee, 193 F.2d 306, 315-16 (2d Cir. 1951) (Frank, J., dissenting), *aff'd,* On Lee v. United States, 342 U.S. 941 (1952).

[172] *Id.* at 512.

[173] *See, e.g.*, *Warden*, 387 U.S. at 305 (stating that "[i]n determining whether someone is a 'person aggrieved by an unlawful search and seizure' we have refused 'to import into the law . . . subtle distinctions, developed and refined by the common law in evolving the body of private property law which, more than almost any other branch of law, has been shaped by distinctions whose validity is largely historical'") (quoting Jones v. United States, 362 U.S. 257, 266 (1960)); *id.* at 305-06 (citing Henry v. United States, 361 U.S. 98 (1959) for its suppression of stolen goods which at common law could have been seized); *id.* at 305 (declaring that "[t]he development of search and seizure law . . . is replete with examples of the transformation in substantive law brought about through the interaction of the felt need to protect *privacy* from unreasonable invasions and the flexibility in rulemaking made possible by the remedy of exclusion") (emphasis added).

[174] Katz v. United States, 389 U.S. 347, 353 (1967); *see also* Berger v. New York, 388 U.S. 41, 51 (1967) (stating that later cases have "negated" statements in *Olmstead* "that a conversation passing over a telephone wire cannot be said to come within the Fourth Amendment's enumeration of 'persons, houses, papers, and effects'").

[175] *See, e.g.*, *Warden*, 387 U.S. at 304 (stating that the "premise that property interests control the right of the Government to search and seize has been discredited").

[176] 387 U.S. 294 (1967).

[177] 388 U.S. 41 (1967).

[178] 389 U.S. 347 (1967).

[179] In cases decided before 1967, the Court also referred to the Fourth Amendment's protection of privacy. For example, in 1949, the Court, in *Wolf v. Colorado*, 338 U.S. 25 (1949), described the "security of one's *privacy* against arbitrary intrusions by the police" to be "implicit in the concept of ordered liber-

B. Reconfiguring the Fourth Amendment's Foundation: Protecting Society's Interest in Privacy

Although the Court decided numerous Fourth Amendment cases in 1967,[183] several decisions highlighted privacy as an

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ty." *Wolf*, 338 U.S. at 27-28 (emphasis added) (quoting Palko v. Connecticut, 302 U.S. 319, 325, (1937)). Similarly in 1961, the Court in *Mapp v. Ohio*, 367 U.S. 643 (1961), referred to "the Fourth Amendment's right of privacy." *Mapp*, 367 U.S. at 655. It also quoted *Boyd*'s reference to the Fourth Amendment protecting "the sanctity of a man's home and the *privacies* of life." *Id.* at 646 (emphasis added) (quoting Boyd v. United States, 116 U.S. 616, 630 (1886)).

[180] *Warden*, 387 U.S. at 304.

[181] *See, e.g.,* California v. Greenwood, 486 U.S. 35, 37 & 41 (1988) (holding that the Fourth Amendment does not prohibit "the warrantless search and seizure of garbage left for collection outside the curtilage of a home," which was an "area accessible to the public"); United States v. Dunn, 480 U.S. 294, 300-01 (1987) (relying on the 1924 case of *Hester v. United States*, 265 U.S. 57, 58 (1924) to aid it in creating four factors to define what kind of an area represents "curtilage," a common law construction to grant the area around the home the "same protection under the law of burglary": "the proximity of the area claimed to be curtilage to the home, whether the area is included within an enclosure surrounding the home, the nature of the uses to which the area is put; and the steps taken by the resident to protect the area from observation by people passing by"); Dow Chemical v. United States, 476 U.S. 227, 236, 237-38 (1986) (stating that area surrounding a large industrial complex "can perhaps be seen as falling somewhere between 'open fields' and curtilage, but lacking the critical characteristics of both," but recasting these property questions under the umbrella of society's "privacy" expectations).

[182] *Warden*, 387 U.S. at 307 (stating that suppression, "which made possible protection of privacy from unreasonable searches without regard to proof of a superior property interest, likewise provides the procedural device necessary for allowing otherwise permissible searches and seizures conducted solely to obtain evidence of a crime").

[183] *See, e.g.,* Camara v. Mun. Court, 387 U.S. 523 (1967) (establishing Fourth Amendment standard for administrative health and safety inspections of the home). In *Camara*, the Court recognized privacy associated with one's home:

> The right of officers to thrust themselves into a home is also a grave concern, not only to the individual but to a society which chooses to dwell

interest protected by the Fourth Amendment: *Warden v. Hayden*,[184] *Berger v. New York*,[185] and, most intensely, *Katz v. United States*. [186]In these three cases, the Court lifted privacy strands from prior cases and highlighted them, thus allowing the Fourth Amendment to apply to some police practices that previously would not have been a "search." The Court recharacterized some older cases, which focused on property concepts, to symbolize the Fourth Amendment's protection for an individual's interest in privacy,[187] and it overruled some prior cases,[188] characterizing them as lacking a privacy focus. Yet, the Court's construction and application of its privacy standard has also resulted in many police practices not being "searches."

In *Warden v. Hayden*,[189] the Court explicitly rejected a property focus for the Fourth Amendment as it strengthened the power of the government to gather information leading to

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> in reasonable security and freedom from surveillance. When *the right of privacy* must reasonably yield to the right of search is, as a rule, to be decided by a judicial officer, not by a policeman or government or enforcement agent.

Camara, 387 U.S. at 529 (emphasis added) (quoting Johnson v. United States, 333 U.S. 10, 14 (1948)); *see also* See v. Seattle, 387 U.S. 541, 545 (1967) (concluding "that administrative entry, without consent, upon the portions of commercial premises which are not open to the public may only be compelled through prosecution or physical force within the framework of a warrant procedure").

[184] 387 U.S. 294 (1967).

[185] 388 U.S. 41 (1967).

[186] 389 U.S. 347 (1967).

[187] *See generally* Clancy, *supra* note 143, at 329 (stating that "after adopting privacy as the measure of the individual's interest protected by the Fourth Amendment, the Court had to retrofit its prior case law to coincide with it.").

[188] *See, e.g.,* Katz v. United States, 389 U.S. 347, 353 (1967) (concluding that "the underpinnings of *Olmstead* and *Goldman* have been so eroded by our subsequent decisions that the 'trespass' doctrine can no longer be regarded as controlling"); *Warden*, 387 U.S. at 300, 309-10 (rejecting prior case law distinction between the government's seizing "mere evidence" and the government's seizing "instrumentalities, fruits or contraband"), *overruling* Gouled v. United States, 255 U.S. 298 (1921); *see also* Berger v. New York, 388 U.S. 41, 64 (1967) (Douglas, J., concurring) (stating that "I join the opinion of the Court because at long last is overrules *sub silentio Olmstead v. United States*, . . . and its offspring and brings wiretapping and other electronic eavesdropping fully within the purview of the Fourth Amendment.").

[189] 387 U.S. 294 (1967).

conviction. It stated, "The premise that property interests control the right of the government to search and seize has been discredited."[190] To give police officers a bigger investigative power, the Court discarded prior decisions,[191] which had limited authority to search and seize contraband, fruits, and instrumentalities of crime. Older cases considered what kind of property officials could search and seize. With the prior case law having this property focus, the Court and the dissent[192] recast the Fourth Amendment to protect privacy, not property. It explained, "Privacy is disturbed no more by a search directed to a purely evidentiary object than it is by a search directed to an instrumentality, fruit or contraband."[193] The Court then proceeded to find the old property distinctions to be "wholly irrational" when considered from an individual's interest in privacy.[194]

With a privacy perspective highlighted in *Warden,* the Court continued discussing privacy in *Berger*, but ironically concluded with the property language of its prior cases, stating that a state statute unconstitutionally "permit[ted] a trespassory invasion of the home [and] office."[195] *Berger* declared unconstitutional a state statute that failed to limit electronic eavesdropping.[196] The Court explicitly held that the electronic capturing of a conversation was a "search" within the meaning of the Fourth Amendment.[197] It viewed prior precedent as having "negated" its holding in *Olmstead* that a wiretap of a telephone line from a home was not a "search."[198] Even though it briefly concluded using its old property-based perspective, mentioning "trespassory invasion,"[199] it repeatedly characterized the Fourth Amendment as protecting privacy.[200] The Court declared, "It is now well settled that 'the Fourth Amendment's *right of privacy* has been declared enforceable against the States."[201] It also described the "'core of the Fourth Amendment'" as protecting the "'security of one's *privacy*.'"[202] In addition, it also referred to an interest mentioned in older decisions, but one not moved to the forefront: an individual's interest in "security."[203]

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[190] *Warden*, 387 U.S. at 304.

[191] *Id.* at 306 (stating the "premise in *Gouled [v. United States*, 255 U.S. 298 (1921)] that government may not seize evidence simply for the purpose of proving crime has likewise been discredited"). The Court also stated that even though Congress abided by *Gouled*'s property distinctions, it found such adherence "attributable more to chance than considered judgment." *Id.* at 308.

[192] *Id.* at 313 (Douglas, J., dissenting). Justice Douglas had authored two years earlier *Griswold v. Connecticut*, 381 U.S. 479 (1965), in which he articulated a right to privacy arising from the "penumbras" of the Bill of Rights. *Griswold*, 381 U.S. at 484. In considering the emanations from the Fourth Amendment, he cited *Boyd*'s reference to the "sanctity of a man's home and the *privacies* of life." *Id.* (citation omitted). He also discerned the emanation by considering the Court's earlier reference to the "Fourth Amendment as creating a 'right to privacy.'" *Id.* at 485 (quoting Mapp v. Ohio, 367 U.S. 643, 656 (1961)). When considering the mere evidence rule in *Warden*, Justice Douglas similarly reaffirmed his perspective that the Fourth Amendment protects privacy. *Warden*, 387 U.S. at 312-15. He referred to Lord Camden's decision of 1765 as establishing a "zone of privacy which no governmental official may enter." *Id.* at 314-15 (citation omitted).

[193] *Warden*, 387 U.S. at 302.

[194] *Id.*

[195] Berger v. New York, 388 U.S. 41, 64 (1967).

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[196] *Berger*, 388 U.S. at 44.

[197] *Id.* at 51.

[198] *Id.*

[199] *Id.* at 64.

[200] *Id.* at 49. The Court quoted the famous passage from *Boyd*, which quoted Lord Camden to construct a view of framers' intent:

> The principles laid down in this opinion affect the very essence of constitutional liberty and security. They reach farther than the concrete form of the case . . . they apply to all invasions on the part of the government and its employees of the sanctity of a man's home and the *privacies* of life.

Id. at 49 (emphasis added) (citing Boyd v. United States, 116 U.S. 616, 630 (1886) (quoting Entick v. Carrington, 19 How. St. Tr. 1029 (1765)); *see also id.* at 63 (stating that "[t]his is no formality that we require today but a fundamental rule that has long been recognized as basic to the *privacy* of every home in America") (emphasis added); *id.* at 62 (quoting Lopez v. United States, 373 U.S. 427, 441 (1963), "the fantastic advances in the field of electronic communication constitutes a great danger to the *privacy* of the individual") (emphasis added); *id.* at 56 (citing prior precedent for recognizing that a recording constituted "an invasion of *privacy* protected by the Fourth Amendment") (emphasis added).

[201] *Id.* at 53 (emphasis added).

[202] *Id.* (quoting Wolf v. Colorado, 338 U.S. 25, 27 (1949)). Older decisions also mentioned privacy, but not as the means of defining a Fourth Amendment search. *See, e.g.,* Johnson v. United States, 333 U.S. 10, 14 (1948) (stating that "[w]hen the right of privacy must reasonably yield to the right of search is, as a rule, to be decided by a judicial officer, not by policeman or government enforcement agent.").

[203] *Berger*, 388 U.S. at 53 (quoting Camara v. Mun. Court, 387 U.S. 523, 528 (1967)). In *Camara*, the Court stated that the "basic purpose of this Amendment,

In its seminal decision in *Katz v. United States*,[204] the Court–in five opinions[205]—explicitly acknowledged a shift in paradigms for interpreting what constitutes a Fourth Amendment "search." At issue was governmental officials' attachment of an "electronic listening and recording device to the outside of a public telephone booth."[206] In writing for the Court, Justice Stewart discarded the "'trespass' doctrine" from *Olmstead* and *Goldman*[207] and stated that the "Fourth Amendment protects people—and not simply 'areas'—against unreasonable searches and seizures."[208] The Court held that the officials had conducted a Fourth Amendment "search."[209] In doing so, the Court looked to modern practices in examining the technology at issue–telephones. The Court stated, "To read the Constitution more narrowly is to ignore the vital role that the public telephone has come to play in private communication."[210]

The Court found unhelpful how the parties had framed the "search" issues: "[w]hether a public telephone booth is a constitutionally protected area" and whether "physical penetration of a constitutionally protected area" is necessary for the Court to hold that a "search" occurred.[211] A "search" had occurred because Katz, in using the telephone, had shut the door behind

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as recognized by countless decisions of this Court, is to safeguard the privacy and security of individuals against arbitrary invasions by governmental officials." *Camara*, 387 U.S. at 528.

[204] 389 U.S. 347 (1967).

[205] Katz v. United States, 389 U.S. 347, 347 (1967). Justice Stewart authored the opinion for the Court, which all Justices joined except dissenting Justice Black. *Katz*, 389 U.S. at 359. (Justice Marshall did not participate in the decision). Three justices wrote concurring opinions (Douglas, joined by Justice Brennan, White and Harlan); these opinions in part disagreed as to whether the Fourth Amendment had a "national security" exception to the warrant requirement, an issue not before the Court but mentioned and left unresolved by Justice Stewart. *Id.* at 358-64. Justice Harlan's concurrence articulated a standard for defining a Fourth Amendment "search" later adopted by a majority of the Court. *Id.* at 361; *see, e.g.*, Smith v. Maryland, 442 U.S. 735, 740 (1979) (applying Harlan's two-part inquiry for a Fourth Amendment "search").

[206] *Katz*, 389 U.S. at 348.

[207] *Id.* at 353.

[208] *Id.*

[209] *Id.*

[210] *Id.* at 352.

[211] *Id.* at 349, 353.

him, excluding the "uninvited ear."[212] The Court articulated a theory that questioned whether the person had "exposed" the information: "What a person knowingly exposes to the public, even it his own home or office, is not subject of Fourth Amendment protection."[213]

When defining a "search" from this reference, Justice Stewart distinguished between two types of privacy: "a general right of privacy" and a privacy interest protected by the Fourth Amendment. The Court stated that "the protection of a person's *general* right to privacy–his right to be let alone by other people–is like the protection of his property and of his very life, largely left to the law of the individual States."[214] The Fourth Amendment, in contrast protected "privacy," as well as other interests.[215] As an example, Justice Stewart offered that a person has a Fourth Amendment interest in property, whether officials seize it publicly or privately.[216]

In elaborating on this new "search" doctrine, Justice Harlan in a concurrence articulated the modern Court's "search" inquiry: whether the person had a subjective expectation of privacy and whether this expectation is "one that society is prepared to recognize as 'reasonable.'"[217] He did not, however, discard examining the "place" under consideration. He explained that a person's "home is, for most purposes, a place where he expects privacy."[218] In addition, he recast the physical penetration inquiry to include "electronic invasion,"[219] stating that requiring "physical penetration" is "bad physics as well as bad law."[220]

In contrast, Justice Black's dissent reflected prior case law and a different role for the Court.[221] Not only did he not want to discard precedent,[222] but he could not create a construction of the word "search" to include electronic eavesdropping.[223] He sarcastically accused the Court of preferring "philosophical discourses" to the mundane task of reading the words of the Fourth Amendment.[224] In addition, he constructed a framer's intent argument to exclude this modern practice, noting that the framers had not prohibited general eavesdropping.[225] He rejected the need to "rewrite the Amendment in order 'to bring it into harmony with the times.'"[226]

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[212] *Id.* at 352.
[213] *Id.* at 351.
[214] *Id.* at 350.
[215] *Id.*
[216] *Id.* at 350 n.4.
[217] *Id.* at 361 (Harlan, J., concurring).
[218] *Id.*
[219] *Id.* at 360.
[220] *Id.*
[221] *Id.* at 364-74 (Black, J., dissenting).

In examining telephone technology, the majority and the dissent in *Katz* faced the same interpretive task: how to apply the Fourth Amendment to a practice not explicitly addressed by the text, one that did not exist at the time of the framing, and one inconsistently addressed by precedent. In time, the Court adopted Justice Harlan's two-part standard for a "search," yet one could only know the meaning of the standard through the Court's application of it. The progeny of *Katz* fails to provide a coherent framework for predicting when an activity is a "search," just as a postmodernist would expect. The progeny does reveal, however, the Court's rhetorical flourishes upon the privacy theme established in *Katz*.

III. COURT'S CONSTRUCTION OF THE RELATIONSHIP BETWEEN PRIVACY AND EMERGING TECHNOLOGY

Since *Katz v. United States,* the Court has decided numerous cases revealing its varied conceptions of privacy. The Court's decisions sometimes have clear boundaries, but mostly what privacy means is still uncertain for a variety of reasons. Advances in technology often invite the Court to draw analogies from one investigative practice to another one. An analogy by definition is an inexact comparison, allowing the analyst to see both similarities and dissimilarities. Depending upon whether the analyst emphasizes a dissimilarity or a similarity, the application is often uncertain. Privacy is also a shifting ground in society, one that eludes sharp characterization. As Professors Wayne LaFave and Tony Amsterdam have noted, deciding what constitutes a "search" is simply a "value judgment," one considering whether a particular police practice is "inconsistent with the aims of a free and open society."[227] By highlighting those cases in which the Court considered new technology, we can discern the Court's rhetorical devices for labeling activities as implicating privacy protected by the Fourth Amendment. In doing so, we are able to view the Court's recent decision in *Kyllo v. United States* as meandering down another new road, but one not labeled by the Court.

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[222] *Id.* at 367-72.

[223] *Id.* at 364-65.

[224] *Id.* at 365.

[225] *Id.* at 366. He explained that the framers were "no doubt aware" of the practice of eavesdropping, "and if they had desired to outlaw or restrict the use of evidence obtained by eavesdropping . . . they would have used the appropriate language to do so in the Fourth Amendment." *Id.*

[226] *Id.* at 364.

Even though the Court has thematically described its "search" jurisprudence as protecting an individual's interest in privacy, the privacy theme masks the Court's numerous rhetorical devices for deciding cases, devices that give the Court great flexibility in deciding whether a "search" occurred. In examining new technology, the Court constructed the relationship between privacy and technology using several rhetorical devices: (1) declaring a police investigative practice to be *sui generis*, in a class by itself, because it was so nominally intrusive; (2) characterizing public and private disclosure as clearly discernible acts (i.e, not viewing privacy as being on a continuum or representing a normative judgment); (3) distinguishing between different types of sensory enhancement devices, with visual surveillance and olfactory enhancement, affording officials greatest freedom from restraints by the Fourth Amendment, but with non-enhanced, basic physical touch often implicating the Fourth Amendment.

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[227] LAFAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT, § 2.1(d), at 393 (3d ed. 1996) (quoting Anthony Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 385 (1974)).

A. Sui Generis *Investigative Activity: Not a "Search"*

In *United States v. Place*,[228] the Court held that no "search" occurred because officers used nominally intrusive technology–a canine sniff for drugs—to gather incriminating information.[229] Instead of holding that the dog sniff was "reasonable" under the Fourth Amendment,[230] the Court declared the practice to be unique, in a class of its own, one not even implicating the Fourth Amendment.[231] In doing so, the Court created a special category for an investigative practice. The Court first envisioned only one type of investigative practice deserving of the label *sui generis*–a canine sniff of luggage for drugs.[232] In time, analogy allowed the Court in *United States v. Jacobsen*[233] to extend the "no search" label to another nominally intrusive practice–field testing of a white powder to determine if it were cocaine.[234] With *two* types of technological activities falling within the class, the *Jacobsen* Court did not label field testing to be *sui generis*; reasoning by analogy was sufficient for the Court. (Despite the Court's categorization, another rhetorical device would still allow the Court a way out from its "no search" conclusion–factual distinctions from case to case.)

In two cases, *Place* and the recent decision of *City of Indianapolis v. Edmond*,[235] the Court determined that dog sniffs were not "searches" under the facts of the cases.[236] Although the Court's determinations in both cases were dicta, the decisions cited two aspects relevant for its conclusion: the nominal intrusion by the dog's sniffing and the limited disclosure of information.[237]

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[228] 462 U.S. 696, 707 (1983).

[229] United States v. Place, 462 U.S. 696, 707 (1983).

[230] *Place*, 462 U.S. at 707. Concurring in the judgment, Justice Blackmun labeled the Court's "no search" determination to be dicta, but hypothesized that "a dog sniff may be a search, but a minimally intrusive one that could be justified . . . [by] reasonable suspicion." *Id.* at 723 (Blackmun, J., concurring).

[231] *Id.* at 707.

[232] *Id.* The Court stated, "We are aware of no other investigatory procedure that is so limited both in the manner in which the information is obtained and in the content revealed by the procedure." *Id.*

[233] 466 U.S. 109 (1984).

[234] United States v. Jacobsen, 466 U.S. 109, 123-24 (1984).

[235] 531 U.S. 32 (2001).

[236] City of Indianapolis v. Edmond, 531 U.S. 32, 40 (2000); *Place*, 462 U.S. at 707.

In *Place*, a dog sniffed an airline passenger's luggage; officers had reasonable suspicion to believe that the passenger was carrying illegal narcotics, which according to the Court, allowed the officers to briefly detain the passenger. Before concluding that the sniff of luggage was not a search, the Court made the following comment: "Obviously, if this investigative procedure is itself a search requiring probable cause, the initial seizure of [the passenger's] luggage for the purpose of subjecting it to the sniff test–no matter how brief–could not be justified on less than probable cause."[238] One may infer from this statement that the Court may have seemed constrained by its prior search jurisprudence and that one way out was to declare a sniff not to be a search. Justice Blackmun, in his concurring opinion in the judgment, drew that inference, stating that the Court could have labeled the sniff to be a search, but one justified by reasonable suspicion, not necessarily requiring probable cause.[239] Instead, the Court created a special category for dog sniffs because "this investigative technique is much less intrusive than a typical search"[240] and because the sniff produced a "limited disclosure."[241] In concluding, the Court also wove in the facts of the case; the sniff was a luggage "located in a public place."[242]

When the context shifted to sniffing the "exterior" of cars, the Court in *City of Indianapolis* cited *Place* to support its conclusion that no "search" occurred.[243] Even though the Court held that roadblocks primarily designed to detect illegal drugs violated the Fourth Amendment,[244] the Court in a single paragraph disposed of the dog-sniffing issue.[245] In contrast, the dissent in *City of Indianapolis* viewed the majority as relying on the officials' use of drug-detecting dogs to give the roadblocks an unconstitutional primary purpose.[246] For the majority, the dogs were irrelevant because the sniffs were not searches.

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[237] *Edmond*, 531 U.S. at 53; *Place*, 462 U.S. at 707. In *Place*, the Court determined that officers unreasonably seized an airline passenger's luggage for ninety minutes while waiting to have a dog sniff it. *Place*, 462 U.S. at 710. In *City of Indianapolis*, the Court held that if the primary purpose of a roadblock was to search for drugs it was unconstitutional, but that walking a dog around an illegally stopped car did "not transform the seizure [of the car and person] into a search." *Edmond*, 531 U.S. at 40.

[238] *Place*, 462 U.S. at 706.

[239] *Id.* at 723 (Blackmun, J., concurring).

[240] *Id.* at 707.

[241] *Id.*

[242] *Id.*

The Court also extended the dog-sniff analysis to the chemical testing for drugs in *United States v. Jacobsen*.[247] Officers examined white powder in clear bags that Federal Express employees discovered while opening a damaged package. The officers used three test tubes to determine if the powder was cocaine. The Court explained that "[w]hen a substance containing cocaine is placed in one test tube after another, it will cause liquids to take on a certain sequence of colors."[248] Again the Court cited the dual rationale of *Place*–a nominally invasive procedure with limited disclosure.[249] For the Court, the testing did not compromise "any legitimate interest in privacy" because it only told the officers one fact–whether the substance was cocaine.[250] In justifying its conclusion, the Court noted that the test would not disclose whether the white powder was "sugar or talcum powder."[251] In contrast, the dissent disagreed with the Court's "unbounded analysis," fearing that the Court was "redefin[ing] the term 'search' to exclude a broad class of surveillance techniques."[252] In the end, the dissent did, however, agree that the testing did not implicate privacy because the owner had not hidden the powder in a "transparent pharmaceutical vial" to make it look like "legitimate medicine."[253] The dissent thus sought to focus on context to determine a search rather than the unique but limited testing procedure.

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[243] *City of Indianapolis*, 531 U.S. at 40.

[244] *Id.* at 42.

[245] *Id.* at 40.

[246] *Id.* at 49 (Rehnquist, C.J., dissenting) (dissenting because the roadblocks "serve the State's accepted and significant interests of preventing drunken driving and checking for driver's licenses and vehicle registrations, and because there is nothing in the record to indicate that the addition of the dog sniff lengthens these otherwise legitimate seizures").

[247] United States v. Jacobsen, 466 U.S. 109, 123-25 (1984).

[248] *Id.* at 111 n.1.

[249] *Id.* at 122-24.

[250] *Id.*

[251] *Id.* at 122.

With the creation of a special category for dog sniffs, the *Jacobsen* Court thus expanded this category to include field testing for the presence of cocaine. In a related contest, the Court, again in dicta, suggested that another nominally intrusive and limited disclosure test might be valid pursuant to a lawful investigative stop–fingerprinting suspects in the field.[254] In *Hayes v. Florida*,[255] the Court explicitly left open whether officers who have reasonable suspicion of criminal activity may fingerprint suspects during a brief detention. Although the Court did not discuss the issue under its search doctrines,[256] one may construct a parallel between *Jacobsen*'s field drug-testing and field fingerprinting.

This categorical exclusion is just one rhetorical device for quickly ending Fourth Amendment analysis. Another rhetorical device has involved the Court's dichotomy between what is "private" and what is "public." Instead of describing privacy as falling on a broad continuum, the Court has created another category in which technological activities are surprisingly (depending on one's perspective) not "searches."

B. Using Technology to Get Information from Trusted Third Parties: Not a "Search"

The *Katz* Court also stated that no "search" occurs when individuals "expose" information to the public.[257] In applying this strand of *Katz*, the Court constructed a rigid dichotomy between private and public information, instead of viewing personal information as possessing different degrees of privacy. Under the Court's dichotomous construction, a person who reveals information to a trusted third-party has exposed that information to the "public."[258] If the third-party then violates the confidence and gives officials the information, no "search" occurred because the individual "exposed" the information to the "public" by informing the trusted third person. The significance to this private and public dichotomy emerges when officials used technology to gather such "exposed" information to third parties. A case representing this construction of privacy is *Smith v. Maryland*,[259] a case ironically relied on by the modern Court in *Kyllo v. United States*,[260]a case reaching a different conclusion by using different rhetorical constructions.

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[252] *Id.* at 136 (Brennan, J., dissenting).
[253] *Id.* at 142.
[254] Hayes v. Florida, 470 U.S. 811, 816 (1985).
[255] *Hayes*, 470 U.S. at 816.
[256] *Id.*
[257] Katz v. United States, 389 U.S. 347, 351 (1967).

In *Smith*, officials used a "pen register" to record the local numbers that Smith had dialed from his home.[261] Officials had asked a telephone company to install the device in its facility, not in Smith's home.[262] The device worked by recording the "electrical impulses" Smith made by dialing.[263] The Court applied Harlan's two-part inquiry in *Katz* and also relied on "search" cases decided before *Katz*.[264] The Court held that no "search" occurred[265] when officials used this device to learn which local numbers Smith had dialed.

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[258] Smith v. Maryland, 442 U.S. 735, 744-45 (1979); United States v. Miller, 425 U.S. 435, 443 (1976).

[259] 442 U.S. 735 (1979).

[260] 533 U.S. 27 (2001) (citing case to explain its conclusion that a "search" occurred); *Kyllo*, 533 U.S. at 44 (Stevens, J., dissenting) (citing case to explain his conclusion that no "search" occurred). For a discussion of *Kyllo*, *see infra* text in Part IV.

[261] *Smith*, 442 U.S. at 737-38.

[262] *Id.* at 737.

[263] *Id.* at 736 n.1.

[264] *Id.* at 739-40. The Court looked to cases in which the individual had told personal information to a "friend," who turned out to be an undercover official or an informant. *Id.* at 743-44 (citations omitted). The "friend," using technology, then transmitted the statements to others or recorded them. In these cases, the Court held before *Katz* that no "search" had occurred. *See, e.g.*, Lopez v. United States, 373 U.S. 427 (1963) (secretly using electronic equipment to record conversation); On Lee v. United States, 343 U.S. 747 (1952) (using radio equipment to transmit conversations).

[265] *Smith*, 442 U.S. at 745-46.

In applying the two-part inquiry, the *Smith* Court made several observations about the *Katz* standard. The Court explained that the first question–a person's subjective expectation of privacy—may at times need to be replaced by a "normative inquiry."[266] Such circumstances, "where subjective expectations could play no meaningful role," according to the Court, would exist if the government had announced on television that no privacy existed or where a person had been conditioned by a "totalitarian country;" the normative question of "this nations traditions" would instead be considered.[267] The circumstances of this case, for the Court, did not raise this normative question. The Court also narrowly interpreted the second question–whether a person had a reasonable expectation of privacy by characterizing the homeowner as voluntarily disclosing his telephone numbers to the public, even though the disclosure was to the telephone company for a "limited purpose."[268] Third, the Court also considered whether telephone companies had "routinely used" this technology.[269] In doing so, the Court characterized the issue of routine use in two contrasting ways–it considered both actual practices[270] and potential practices by telephone companies.[271] Fourth, the Court characterized the disclosure as limited, noting that the pen register would not even indicate whether a conversation had actually occurred.[272] And most important, the Court framed the privacy issue as an interest in the numbers dialed, not in the activity conducted in privacy of one's home.[273]

As characterized by the *Smith* Court, the homeowner had neither a subjective, nor a reasonable, expectation of privacy "that the numbers . . . dial[ed] will [be kept] secret."[274] To rebut his asserted subjective expectation of privacy, the Court cited both a Baltimore and District of Columbia telephone directory which informed subscribers that the phone company can help in "identifying to the authorities the origin of unwelcome calls."[275] This notice, for the Court, undermined a subjective expectation of privacy. Ironically, in addressing this issue, the Court stated that subscribers "*must convey numerical information to the phone company*."[276] But later, in examining the second issue of reasonable expectation of privacy, the Court characterized the submission of numerical information as "voluntary;" Smith "voluntarily conveyed to [the telephone company] information that it had facilities for recording and that it was free to record."[277] One may try to reconcile the conflict by stating that the Court only in dicta addressed the second issue of a reasonable expectation of privacy, having determined that Smith lacked a subjective expectation of privacy. Yet, this inconsistency highlights how the Court's constructions of "facts" influence the outcome.

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[266] *Id.* at 740 n.5.

[267] *Id.*

[268] *Id.* at 744 (quoting United States v. Miller, 425 U.S. 435, 443 (1976)).

[269] *Id.* at 742.

[270] *Id.* at 742-43.

[271] *Id.* at 745.

[272] *Id.* at 741-42.

[273] *Id.* at 742.

[274] *Id.* at 743.

The Court also considered how telephone companies "routinely use[]"[278] pen registers under both *Katz* inquiries. Under the subjective prong of *Katz*, routine use meant actual practices of many telephone companies. The Court discerned routine use of pen registers in "checking billing operations, detecting fraud, and preventing violations of the law."[279] Although the Court did not identify which violations that companies routinely detected, it did declare that "most people . . . presumably have some awareness of one common use: to aid in the identification of persons making annoying or obscene calls."[280] But when considering the second issue, the Court looked to potential practices–whether the telephone company could have used a pen register to record local calls.[281] The Court refused to considered whether the specific telephone company involved had a practice of recording local calls. The Court attempted to justify its reliance on potential practice by stating that to do otherwise would be "to make a crazy quilt of the Fourth Amendment . . . dictated by billing practices of a private corporation."[282] In short, nationwide practices—actual and potential—contributed to determining that no "search" occurred.

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[275] *Id.* at 742-43 (citations omitted).

[276] *Id.* at 743.

[277] *Id.* at 745.

[278] *Id.* at 742, 745.

[279] *Id.* at 742 (citing United States v. New York Tel. Co., 434 U.S. 159, 174-75 (1977)).

[280] *Id.*

[281] *Id.* at 745.

The Court also viewed as undermining the homeowner's subjective expectation of privacy the limited nature of the disclosure, an aspect also of the Court's *sui generis* no "search" doctrine.[283] The Court determined that there was a constitutional difference between listening to the words of a conversation, as had occurred in *Katz*, and in learning the numbers the homeowner dialed. The Court separated the words of a conversation from the numbers dialed, stating that "pen registers do not acquire the *contents* of communications."[284] With pen registers not even recording whether a conversation had occurred, the Court concluded that the pen register had "limited capabilities."[285] In contrast, the dissents viewed individuals as having a strong privacy interest in "avoid[ing] disclosure of their personal contacts."[286] The conflicting characterizations may in part arise from the majority's dichotomous privacy approach and the dissent viewing privacy as falling on a spectrum.[287]

Significantly aiding the Court's no "search" determination was its characterization of what activity was under consideration. For the majority, dialing from one's home was "immaterial for purposes of analysis in this case"[288] because the telephone company could have gotten the same information if it had used another person's telephone. The Court's privacy frame was thus limited to revealing the numbers dialed, not what one had done in his home. In contrast, a dissent invoked a broader privacy frame that encompassed the officers' learning of what the homeowner had done in his house.[289]

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[282] *Id.*

[283] *See supra* notes 231-53 and accompanying text.

[284] *Smith*, 442 U.S. at 741.

[285] *Id.* at 742.

[286] *Id.* at 751 (Marshall, J., dissenting); *see also id.* at 748 (Stewart, J., dissenting).

[287] *Id.* at 749 (Marshall, J., dissenting). Justice Marshall stated, "Privacy is not a discrete commodity, possessed absolutely or not at all." *Id.*

[288] *Id.* at 743.

By limiting the privacy issue to numbers dialed, the Court was able to then characterize the homeowner as putting the dialed numbers in the public arena. Here the Court relied on cases decided before *Katz* to support its view of the privacy risk analysis. Prior to *Katz*, the Court had determined that officials may use technology to secretly record the exact words a person states to them, even if the disclosure of the words would violate a confidence.[290] Although these cases dealt with information given to an undercover officer or informant, the *Smith* Court extended this practice to the telephone company.[291]

The *Smith* Court thus constructed a "search" doctrine that allowed officials to gain access to information without any procedural steps, for the officials had not gotten a subpoena nor a search warrant.[292] The telephone company's voluntary disclosure of information that it did not routinely collect did not trouble the Court because it viewed the "numbers dialed" to be in the public arena. Perhaps the Court was prescient, anticipating both the development and routine use of caller identification by the public, but at the time of *Smith*, recording *local* numbers dialed was not routine. But more importantly, the construction of the privacy issue itself–the numbers dialed versus learning about activity in the home–foreshadowed the Court's negative conclusion.

Since *Smith*, the Court has often decided that officials did not conduct Fourth Amendment "searches" when using technology to aid their senses. In a series of cases, the Court shifted the rhetorical arguments to allow officials with broad investigative powers outside the restraints of the Fourth Amendment.

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[289] *Id.* at 747 (Stewart, J., dissenting).

[290] *Id.* at 742 (citations omitted).

[291] *Id.* at 744-45. Supporting its decision was a recent decision determining that bank users had no reasonable expectations of privacy violated when banking officials turn over records documenting personal transactions to officials. United States v. Miller, 425 U.S. 435, 442-43 (1976). Similar to the *Smith* decision, the Court characterized the bank records as lacking privacy content: "checks are not confidential communications but negotiable instruments to be used in commercial transactions." *Miller*, 425 U.S. at 442. It also similarly determined the depositor had voluntarily "exposed" such information to the public, namely the banks' employees. *Id.*

[292] *Smith*, 442 U.S. at 737.

C. *Using Technology to Enhance Officials' Senses: Often Not a "Search"*

In interpreting *Katz*, the Court has frequently determined that no "search" occurred when officials used technology to aid four of their senses in conducting investigations. The Court has most narrowly interpreted *Katz* as applied to officials' use of technology enhancing visual surveillance in public. In contrast, the Court has at times broadly interpreted *Katz* when applied to an investigative technique not involving technology–touch. And as previously discussed, *Katz* held that a "search" occurred when officials used technology to aid their listening to a conversation in a public telephone booth, and *Place* held that no "search" occurred when officials used dogs to enhance their ability to smell drugs in luggage. In these opinions, the Court has frequently cited *Katz* and its progeny in contrasting and conflicting ways. In the end, what constitutes a "reasonable expectation of privacy" is a fact-driven question, one allowing the Court to use a variety of rhetorical constructions to characterize whether officials used technology to infringe constitutionally protected privacy.

When applying the *Katz* standard to officials' use of technology to aid vision, the Court has looked to cases decided long before *Katz* articulated its "public exposure" doctrine: "What a person knowingly exposes to the public, even if in his own home or office, is not subject of Fourth Amendment protection."[293] For example, in deciding that no search occurred when officers used a flashlight to look inside a car at night,[294] the Court cited a 1927 decision, that examined officials' use of a "searchlight" to gaze onto the deck of a boat.[295] It did not cite *Katz* for this holding, but it did cite *Katz* with regard to the question whether officials conducted a "search" by bending "down at an angle" to look inside the car.[296] The Court noted that the "general public could peer into the interior of" the car; thus no "search" occurred.[297]

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[293] Katz v. United States, 389 U.S. 347, 351 (1967).

[294] Texas v. Brown, 460 U.S. 730, 739-40 (1983); *see also* United States v. Dunn, 480 U.S. 294, 304-05 (1987) (holding no "search" when official shined flashlight into barn not within the home's curtilage).

[295] *Brown*, 460 U.S. at 740 (citing United States v. Lee, 274 U.S. 559, 563

With this commonplace enhancement of vision not a "search," the Court then extended the rationale to cases in which fewer members of the public would be in a position to observe what an individual wanted to keep private. In a series of three cases, a majority of the Court held that no "search" occurred when officials used airplanes[298] and a helicopter[299] to put themselves in a position to see better, while sometimes using sophisticated expensive equipment and sometimes just using the naked eye. In deciding that no "search" had occurred, the Court also discussed the particular area under surveillance, without explicitly invoking the "constitutionally protected area" language from its pre-*Katz* search paradigm.

In 1986, the Court decided the same day two cases—*California v. Ciraolo* and *Dow Chemical v. United States*. In *Ciraolo*, officials used their "naked eye[s]"[300] as they flew 1,000 feet above "a fence-in backyard within the curtilage of a home" that appeared to contain marijuana; they also used a "standard 35 mm camera" to photograph the area.[301] In *Dow*, officials from the Environmental Protection Agency flew at an altitude as low as 1,200 feet over a chemical plant, occupying two thousand acres, and used a $22,000 mapping camera[302] that allowed them to magnify pictures to discern "wires as small as ½-inch in diameter."[303] Three years later the fractured Court decided *Florida v. Riley*, in which officials flew 400

(1927)).

[296] *Id.*

[297] *Id.*

[298] Dow Chemical v. United States, 476 U.S. 227 (1986); California v. Ciraolo, 476 U.S. 207 (1986).

[299] Florida v. Riley, 488 U.S. 445 (1989).

[300] *Ciraolo*, 476 U.S. at 215.

[301] *Id.* at 209.

[302] *Dow*, 476 U.S. at 250 n.12 (Powell, J., dissenting).

[303] *Id.* at 238.

feet above "a partially covered greenhouse in a residential backyard."[304] No "search" occurred in any of these cases, but for different reasons.

In all three cases, the Court discussed the area observed and the privacy traditionally associated with it. In both *Ciraolo* and *Riley*, officials flew over an area generally associated with privacy–the curtilage. The Court characterized the privacy associated with curtilage as limited because the "public" could fly over the area and see what it contained.[305] Both decisions found air travel and road travel to be similar and "routine": "In an age where private and commercial flight in the public airways is routine, it is unreasonable" to expect the public not to view the curtilage.[306] The Court crafted a view of "public" exposure by considering whether a private person could have flown over the area and looked at it. In addition, the *Ciraolo* Court also hypothesized that from the ground some individuals could have seen the plants: "a power company repair mechanic on a pole"[307] or a citizen "perched on top of a truck or a two-level bus"[308] could have looked over the ten-foot fence the homeowner had erected to preserve privacy. For the Court, officials simply used technology to put themselves in a "public" thoroughfare–the air.[309] In an important concurring opinion, Justice O'Connor added a gloss on what "public"meant, a view also shared by four dissenters,[310] suggesting that regulations promulgated by the Federal Aviation Agency do not define what constitutes "public" exposure. Instead what is "public" depends upon whether the public travels with "sufficiently regularity" at a particular altitude.[311] The Court also nominally added that the viewing was done in a "physically nonintrusive manner"[312] and did not reveal "intimate details" associated with the home and curtilage.[313]

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[304] *Riley*, 488 U.S. at 447-86 (plurality opinion).

[305] *Ciraolo*, 476 U.S. at 213-14 (stating that "[a]ny member of the public flying in this airspace who glanced down could have seen everything that these officers observed").

[306] *Id.* at 215; *Riley*, 488 U.S. at 450 (plurality) (quoting this passage from California v. Ciraolo); *id.* at 453 (O'Connor, J., concurring in judgment) (quoting same passage).

[307] *Ciraolo,* 476 U.S. at 215.

[308] *Id.* at 211.

[309] *Id.* at 213 (stating that the "Fourth Amendment protection of the home has never been extended to require law enforcement officers to shield their eyes when passing by a home on public thoroughfares").

[310] *Riley*, 488 U.S. at 461 (Brennan, J., dissenting); *id.* at 467 (Blackmun, J., dissenting).

In contrast, when the Court decided *Dow Chemical*, it had an additional technological question before it–whether a search occurred when officials used a sophisticated, expensive camera used by mapmakers.[314] It also had to discuss whether state trade secret laws, which might have barred private parties from taking such pictures, aided the company's claim to privacy protected by the Fourth Amendment. The *Dow* Court relied on *Ciraolo* to justify officials' flying over the plant, but had to reconstruct what it meant by "public" access when state trade laws may have barred private individuals from doing what the government did. In its reconstruction, the Court instead focused on the kind of information gathered; it noted that photographs did not reveal "intimate details,"[315] an aspect also only briefly mentioned in its later *Riley* decision discussing the use of a helicopter, but "central" to identifying what constitutes a "curtilage."[316] It also attempted to shift attention to the limited use of this camera to by raising the question of much more sophisticated technology. It stated, "It may well be . . . that surveillance of private property by using *highly sophisticated* surveillance equipment not generally available in the public, such as satellite technology, might be constitutionally proscribed absent a warrant."[317]

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[311] *Id.* at 454 (O'Connor, J., concurring).

[312] *Ciraolo*, 476 U.S. at 213 (stating that "observations by officers . . . took place within public navigable airspace . . . in a physically noninstrusive manner"); *see also Riley*, 488 U.S. at 449 (plurality opinion) (characterizing *Ciraolo* as "reasoning . . . the home and its curtilage are not necessarily protected from inspection that involves no physical invasion").

[313] *Riley*, 488 U.S. at 452 (plurality) (stating that "no intimate details connected with the use of the home or [other parts of the] curtilage were observed, and there was no undue noise, and no wind, dust, or threat of injury").

[314] The majority characterized the photographs created by the camera as "essentially like those commonly used in mapmaking." Dow Chemical v. United States, 476 U.S. 227, 231 (1986). The dissent not only specified how expensive the camera was, but also labeled it as a "sophisticated aerial mapping camera." *Id.* at 242, 250 n.12 (Powell, J., dissenting).

[315] *Id.* at 238.

[316] United States v. Dunn, 480 U.S. 294, 300 (1987) (stating that the Court has "identified the central component of [the curtilage] inquiry as whether the area harbors the 'intimate activity associated with the "sanctity of a man's home and the privacies of life."'") (quoting Oliver v. United States, 466 U.S. 170, 180 (1984), quoting Boyd v. United States, 116 U.S. 616, 630 (1886)).

It also refused to look to state law to resolve the constitutional privacy issue because, for the Court, to do so would be similar to invoking state trespass laws to determine what constitutes a Fourth Amendment "search."[318] The Court also characterized the area viewed as one reflecting limited privacy interests.[319] The Court explained, "We find it important that this is *not* an area immediately adjacent to a private home, where privacy expectations are more heightened."[320] (Yet, in *Ciraolo* and *Dow*, officials viewed curtilage, but in those opinions, the Court emphasized different facts.)

The Court has also considered officials' enhancing their visual surveillance from the ground by using a "beeper," a "radio transmitter, . . . which emits periodic signals that can be picked up by a radio receiver."[321] In two cases, *United States v. Knotts*[322] and *United States v. Karo*,[323] the Court held that when officials surreptitiously installed a beeper on property and used it to keep track of property hypothetically in public view, they did not engage in a "search."[324] *Karo*, however, did hold that monitoring of a beeper in a home for "a significant period" was a "search."[325]

Although the Court decided *Knotts* even before it heard the oral argument in *Place*, the decision resonates with the Court's *sui generis* characterization it created for dog sniffs of property.[326] In both *Knotts* and *Place*, the Court treated the use of a beeper and a drug-sniffing dog to be nominal additions to the officials' investigative capacities. The *Knotts* Court characterized using a beeper as merely "augmenting the sensory faculties bestowed upon [officers] at birth," even though *Knotts*, officers had to rely on the beeper because their naked eyes failed them.[327] For the *Knotts* Court, a beeper was like the searchlight it had considered in 1927; both the beeper and the search light aided visual observation.[328] The beeper simply allowed officials to keep their eye on the car they were following, one "exposed" to the public. This construction of "public" assumes that officials and private individuals would be able to follow a person traveling in a car, no matter how long the trip may be. The Court crafted this as a "public" excursion by characterizing officials' use of the beeper as being efficient.[329] In this decision, the Court did not ask whether the general public used this technology; instead it viewed officers as simply keeping track of that which was already exposed to the public–the car containing the property with a hidden beeper.[330]

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[317] *Dow*, 476 U.S. at 238.

[318] *Id.* at 232. For a discussion of the Court's prior use of trespass law, see *supra* text accompanying notes 136-71.

[319] *Dow*, 476 U.S. at 236 (stating that the area is one "falling somewhere between 'open fields' and curtilage, but lacking some the critical characteristics of both").

[320] *Id.* at 237 n.4.

[321] United States v. Knotts, 460 U.S. 276, 277 (1983).

[322] 460 U.S. 276 (1983).

[323] 468 U.S. 705 (1984).

[324] *Karo*, 468 U.S. at 715; *Knotts*, 460 U.S. at 285.

[325] *Karo*, 468 U.S. at 715.

[326] For a discussion of this case, see *supra* text accompanying notes 228-32,

The *Karo* Court adhered to *Knotts*' construction of a beeper as a minor sensory augmentation, but only to the point that the object with the beeper was in the "public's" eye. In *Karo*, officials monitored a beeper in a home for a lengthy period.[331] Here the Court drew the line–one surrounding the house. The Court explained that because officials could not have seen inside the house during the extended monitoring of the beeper, the use of the beeper in this context was a "search."[332] What created a sharp division in the Court were different views concerning the monitoring of property after it left the house. For the plurality, later monitoring was not tainted by the earlier monitoring of the house;[333] for the dissent, the house monitor-

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235-39.

[327] *Knotts*, 460 U.S. at 282.

[328] *Id.* at 282-83 (citing United States v. Lee, 274 U.S. 559, 563 (1927).

[329] *Id.* at 284 (stating that "[w]e have never equated police efficiency with unconstitutionality, and we decline to do so now").

[330] *Id.* at 285.

[331] *Karo*, 468 U.S. 715.

[332] *Id.*

[333] *Id.* at 720 (stating that even if prior monitoring of "house or other place

ing "told police that the container had left the area."[334]

Under the Court's constructions of a Fourth Amendment "search," officers thus gained broad investigative powers free from Fourth Amendment constraints when the Court characterized information as already exposed to the public and when the technology they used was to nominally aid their vision. In dramatic contrast to this jurisprudence is the Court's construction of a Fourth Amendment "search" when officials used their basic sense of touch. The Court explicitly recognized this sharp difference in *Bond v. United States*,[335] when it held that an official had conducted a Fourth Amendment "search" when he "squeezed" a bus passenger's soft luggage located in the overhead storage space.

The *Bond* Court described the difference as one of degree: "[P]hysically invasive inspection is simply more intrusive than purely visual inspection."[336] In considering whether the public routinely handles another person's luggage when traveling, the Court characterized the "public" exposure issue narrowly. The question was not whether we have a reasonable expectation of privacy that others will not handle our personal luggage, but rather the more specific question of whether we reasonably expect others to "squeeze" our luggage or to handle it in "an exploratory manner."[337] The manner in which the Court constructed the public exposure issue helped to determine its result. In addition, the Court also ironically cited *Place*, which held that no "search" occurred when a dog sniffed a person's luggage, for the proposition that "luggage" is an "effect" within the meaning of the Fourth Amendment.[338] As a result, the dissent aptly noted that one does not expect drug-sniffing dogs hovering near luggage,[339] but a different doctrine created the

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was" illegal, that monitoring did not lead officials to discover that the property was now somewhere located in a warehouse).

[334] *Id.* at 733 n.8 (Stevens, J., dissenting).

[335] 529 U.S. 334, 339 (2000).

[336] *Bond*, 529 U.S. at 337.

[337] *Id.* at 338-39

[338] *Id.* at 336-37; *see also* United States v. Place, 462 U.S. 696, 707 (1983).

[339] *Bond*, 529 U.S. at 341.

no "search" conclusion in *Place*.[340]

The Court also construed the public exposure doctrine as providing broad protection in another way. Instead of questioning why the passenger had not used hardsided luggage, the Court described the passenger as taking steps to protect privacy by using an "opaque" bag.[341] Yet in an older case, *California v. Greenwood*, when officials rummaged through opaque bags on the front lawn of a homeowner, the examining of the "trash" was not a Fourth Amendment search.[342] Even though the Court had in a prior decision refused to create a doctrinal distinction based on "worthy" and "unworthy" containers,[343] the Court instead relied on its third-party disclosure cases and focused on the location of the garbage to justify its no "search" determination.[344] After the homeowner "voluntarily" placed the bags outside the curtilage, the trash collector was free to alter his routine way of collecting trash in order to separate the homeowner's trash from everyone else's.[345] The Court did not require the trash collector to act "routinely." For the Court, the homeowner "exposed" his stuff hidden in an opaque bag to the "public" by exposing it to the trash collector and "animals, children, scavengers, snoops and other members of the public."[346] In contrast, the dissent discerned a clear reasonable expectation of privacy in the opaque bags. According to the dissent, "Scrutiny of another's trash is contrary to commonly accepted notions of civilized behavior."[347]

In describing what constitutes a "reasonable expectation of privacy" after *Katz*, the Court has thus used a variety of rhetorical devices to characterize privacy. Even if an area historically reflects privacy, as does the curtilage of a home, it may lose this privacy under the public exposure doctrine; personal information can become public information by disclosing it to a trusted third party; an investigative technique may be characterized as *sui generis*, revealing only a single piece of information; technological enhancement may be a search, depending upon which sense it enhances; routine use may have broad and narrow characterization under the public exposure doctrine. In the end, the public-private dichotomy has given the Court a means to label its conclusions. For example, an investigative practice gathered private information (a search) or it collected public information (no search). These shifting constructions of privacy are consistent with postmodernist perspectives, which rejects the idea of a grand theory to explain these search cases.

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[340] *See Place*, 462 U.S. at 707.

[341] *Id.* In examining the touching of personal property in *United States v. Jacobsen*, 466 U.S. 107, 123-24 (1984), the Court used its *sui generis* characterization to justify its no "search" determination as to the testing of white powder contained in a mail package. For a discussion of this case, see *supra* text accompanying notes 247–53.

[342] 486 U.S. 35, 37, 39 (1988).

[343] *See Greenwood*, 486 U.S. at 47 (Brennan, J., dissenting) (collecting cases).

[344] *Id.* at 40-41.

[345] *Id.* at 37.

[346] *Id.* at 40-41.

[347] *Id.* at 45 (Brennan, J., dissenting).

What these decisions do offer to the Court is a variety of rhetorical devices for constructing what constitutes a Fourth Amendment "search" when addressing the use of emerging technology. In *Kyllo v. United States*,[348] the Court used several rhetorical devices to broadly protect the home from officials' use of a heat detection device, a nonphysically invasive investigatory practice. As the latest chapter on officials' use of technology, this sharply divided opinion readily reveals the justices offering dramatically different interpretations of the technology under consideration and the selective use of precedents.

IV. THE *KYLLO* COURT'S RHETORICAL STRATEGIES: CHARACTERIZING TECHNOLOGY AND PRECEDENT

In *Kyllo*,[349] the Court held that officials' use of a thermal imager on public streets to detect heat emissions from a home constituted a "search" because, for five justices, this information was an "intimate detail" arising from the home's interior and because the "general public" did not use this technology.[350] The Court characterized its decision as one creating a bright-line rule, one needed to "take . . . the original meaning of the Fourth Amendment forward."[351] The majority opinion, authored by Justice Scalia, characterized this case as controlled by a blend of history and a fear of modern technology intruding into the home. The dissenting opinion, authored by Justice Stevens, relied on precedent never mentioned by the majority opinion. To reach sharply conflicting conclusions and unusual alliances,[352] the justices in *Kyllo* explicitly challenged the other's characterization of what was at issue in the case and which precedent offered guidance. In the end, these dueling opinions offer a panoply of rhetorical strategies for constructing what activity does or does not constitute a Fourth Amendment "search."

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[348] 533 U.S. 27 (2001).

[349] *Id.*

[350] *Id.* at 2046.

Justice Scalia implicitly admitted that the Court in its "search" jurisprudence has at times reasoned backwards, deciding that an activity was not a "search" because other Fourth Amendment doctrines would then apply. He stated, "[w]e have held that visual observation is no 'search' at all–perhaps in order to preserve somewhat more intact our doctrine that warrantless searches are presumptively unconstitutional."[353] In light of this admitted conclusory reasoning, Justice Scalia was then able to move away from his prior statement that "a search is a search"[354] to the statement that the *Katz* standard applies when "assessing when a search is not a search."[355] Being a Justice fond of citing dictionaries to give meaning to the Constitution's text,[356] he realized that relying on a dictionary for guidance would not support the *Katz* construction of a "search" because of its public exposure strand.[357] In short, a Fourth Amendment "search" is a legal construction, one created by the justices in numerous cases, at times offering different paradigms for a Fourth Amendment "search" and shifting constructions of what precedents mean in application.

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[351] *Id.*

[352] Joining Justice Scalia's majority opinion were Justices Souter, Thomas, Ginsburg, and Breyer. *Id.* at 28. Joining Justice Steven's dissenting opinion were Chief Justice Rehnquist and Justices O'Connor and Kennedy. *Id.* at 41.

[353] *Id.* at 32.

[354] Arizona v. Hicks, 480 U.S. 321, 325 (1987).

[355] *Kyllo*, 533 U.S. at 32.

[356] *See, e.g.,* California v. Hodari D., 499 U.S. 621, 624 n.1 (1991).

[357] *Kyllo*, 533 U.S. at 32 n.1.

Unsurprisingly, the majority and dissenting opinions offered different characterizations of many issues: (1) whether the thermal imager detected information outside or inside the home; (2) whether heat emissions levels are intimate or nonintimate information; (3) whether the general public had access to a thermal imager and whether access was relevant for determining a Fourth Amendment "search"; (4) whether labeling the use of a thermal imager to be a "search" was protecting our society from the slippery slope of allowing officers to use highly sophisticated sense-enhancing equipment (that is, whether to offer a broad or narrow ruling); (5) whether the framers of the Constitution intended to guard against release of this type of information; (6) whether the "public" exposure doctrine applied; (7) whether the Court's *sui generis* doctrine applied, as articulated in *Place* and followed in *Jacobsen*;[358] and (8) whether the pre-*Katz* "search" paradigm–with its focus on common law trespass–still had some vitality after *Katz*. When discussing these aspects of the case, the majority and dissenting opinions at times disagreed head-on and at other times simply offered different constructions.

In *Kyllo*, an officer sat in the passenger seat of his companion officer's car on a public street, both in front of and behind Kyllo's house.[359] The officer pointed the thermal imager at the house, which revealed that "the roof over the garage and the side wall of [Kyllo's] home were relatively hot compared to the rest of the home and substantially warmer than neighboring homes in the triplex."[360] As described by Justice Scalia, a thermal imager is a device that converts the infrared radiation emitted by all objects into "images based on relative warmth–black is cool, white is hot, and shades of gray connote relative differences."[361] For Justice Scalia, the device was like a "video camera showing heat images";[362] for Justice Stevens, the device produced "vague" images,[363] which he included in his appendix.

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[358] For a discussion of these cases, see *supra* text accompanying notes 228-34, 238-42, 247-53.

[359] *Kyllo*, 533 U.S. at 30.

[360] *Id.*

[361] *Id.*

[362] *Id.*

Although the Justices did not dispute that the officers sat outside the house, they did disagree as to whether the thermal imager acquired information emanating from the house or information that was inside the house. Justice Scalia first characterized the imager as coming inside the house; and then he characterized heat levels as "intimate" information because, under his bright-line construction, any information about the house that is "safe from the prying government eyes" constitutes "intimate" information.[364] In contrast, Justice Stevens viewed the heat levels as nonintimate information available outside the house and thus in the public arena.[365] One way of understanding these contrary characterizations is to look at the precedents that the Justices cited and discussed as well as those that they failed to cite and discuss.

To support his characterization of heat levels as nonintimate information arising outside the house, Justice Stevens' cited three cases never mentioned by Justice Scalia—*Place,* the drug-sniffing dog case, *Jacobsen*, the field-testing of a white power case, and *Greenwood*, the trash case.[366] In each of these cases, the Court held that no "search" occurred.[367] As previously discussed, one may view both *Place* and *Jacobsen* as cases falling within the *sui generis* paradigm, a perspective not applied by Justice Scalia probably because of his strong litany, "this is the home under surveillance," evidencing a distinction of constitutional magnitude for Justice Scalia. Justice Stevens compared "heat waves" to "aromas" arising "in a kitchen, or in a laboratory, or opium den."[368] For Justice Stevens, a person could not have a subjective expectation of privacy in the air in these circumstances.[369]Just as in

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[363] *Id.* at 50 (Stevens, J., dissenting).

[364] *Id.* at 38-39.

[365] *Id.* at 41-43 (Stevens, J., dissenting).

[366] For a discussion of these cases, see *supra* text accompanying notes 342-46, 357.

[367] *Id.*

[368] *Kyllo*, 533 U.S. at 43-44 (Stevens, J., dissenting).

[369] *Id.* (Stevens, J., dissenting).

Place, where a drug-detecting dog sniffed the air in an area historically imbued with privacy, the officers used a thermal imager to capture what was in the air. Justice Stevens also referred to *Jacobsen* for the proposition that the Fourth Amendment is not applicable when "the countervailing privacy interest is at best trivial."[370] The homeowner, according to Justice Stevens, could have simply made sure that his home was "well insulated."[371] Justice Stevens also invoked *Greenwood* to compare heat loss to discarded trash bags–both are simply waste.[372]

In contrast, the precedent framing Justice Scalia's analysis was the "search" jurisprudence decided before *Katz*, a case that Justice Scalia had previously criticized as providing "a notoriously unhelpful test," a "self-indulgent test" that allowed the justices to subjectively decide what was "reasonable privacy."[373] For Scalia, history and the common law were important, but not dispositive, references in determining whether a "search" had occurred. Scalia extensively cited and discussed the pre-*Katz* trespass paradigm, yet he admitted that the Court had "decoupled" trespass doctrines with resolution of the Fourth Amendment "search" issue.[374] He nevertheless invoked the old cases to support his view that the home was a "constitutionally protected area."[375] To this old doctrine, he explicitly added a factor that could erode privacy in the home, questioning whether the technology used by the government was generally available to the public.[376] Because he characterized the imager as not in general public use and the information as coming from inside the home, the officials violated the homeowner's privacy.[377]

Considering whether the public used a particular type of technology was not a new topic for the Court, but rather one made as an explicit factor by Justice Scalia. Determining that the general public did not have access to this technology, Justice Scalia declared that he was "quite confident[]" in his assessment;[378] Justice Stevens, in contrast, roughly estimated the number of thermal imagers already in the stream of commerce.[379] He also questioned the wisdom of creating "general use" as an explicit factor, one with the potential to seriously erode privacy each year in light of emerging technologies.[380]

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[370] *Id.* at 44-45 (Stevens, J., dissenting).
[371] *Id.* (Stevens, J., dissenting).
[372] *Id.* at 43-45 (Stevens, J., dissenting).
[373] Minnesota v. Carter, 525 U.S. 83, 97 (1998) (Scalia, J., concurring).
[374] *Kyllo*, 533 U.S. at 31-32.
[375] *Id.* at 34 (citing Silverman v. United States, 365 U.S. 505, 512 (1961)).
[376] *Id.*
[377] *Id.* at 39.

With different degrees of concern about emerging technologies, Justices Scalia and Stevens also wrote opinions with dramatically different breadths. Justice Scalia offered a construction of the Fourth Amendment quite protective of the home as long as the Court characterizes the general public as not having access to the technology employed by the officials. He cited new technologies that could destroy privacy in the home by "seeing" through walls.[381] Justice Stevens instead offered a new, but narrower, construction for safeguarding the home; he distinguished between information derived from "off-the-wall' surveillance" and "through-the-wall" surveillance.[382] For Justice Stevens, the officers in this case received information outside the house by "off-the-wall" surveillance. The integrity of the home was not in issue because the thermal imager did not see through the wall. Justice Stevens sought to support his dichotomy between off- and through-the walls by citing the view of what the Framers intended. He viewed the Framers as chiefly concerned with the "evil" of "physical entry into the home."[383] Because he did not view the thermal imager as involving anything inside the house, he concluded that there was no "search."[384]

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[378] *Id.* at 39 n.6.

[379] *Id.* at 50 n.5 (Stevens, J, dissenting).

[380] *Id.* at 47.

[381] *Id.* at 35-36.

[382] *Id.* at 46 (Stevens, J., dissenting).

[383] *See also id.* (stating that the "interest in concealing the heat escaping from one's house pales in significance to the 'chief evil against which the wording of the Fourth Amendment is directed,' the 'physical entry of the house'") (quoting United States v. United States Dist. Court for E. Dist. of Mich., 407 U.S. 297, 313 (1972)).

[384] *Id.* (Stevens, J., dissenting).

Both Justices also invoked classic slippery slope arguments to support their construction of what constitutes a Fourth Amendment "search" when officials use new technology. Justice Scalia characterized the thermal imager as being able to disclose "at what hour each night the lady of the house takes her bath."[385] This image, when combined with his reference to technology that may someday allow a person to "see" through walls, invokes fear that the home will no longer be private. In contrast, Justice Stevens invoked the fear of not being able to allow officials to use sense-enhancing equipment to "detect the odor of deadly bacteria or chemicals for making a new type of high explosive"[386] or to protect communities from "radioactive emissions."[387] For him, the air analysis in *Place* was an appropriate model for understanding the thermal imager and emerging technology.[388] He explicitly declared "a strong public interest" in allowing officials to detect harmful emissions without Fourth Amendment restraints in order to protect communities.[389]

With these contrasting characterizations of what was at issue in *Kyllo*, ironically both opinions cited the important public exposure decision of *Smith v. Maryland*, the pen register case.[390] Justice Scalia briefly described it for the proposition that governmental officials do not necessarily engage in a "search" when they view information about the home or curtilage.[391] He then cited *Ciraolo*[392] and *Riley*,[393] cases in which officials did not conduct a "search" by flying over a home and its curtilage to visually observe the area.[394] For Justice Stevens, the information that officials get from a pen register (or a thermal imager in this case) is "indirect."[395] Because

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[385] *Id.* at 38.

[386] *Id.* at 48 (Stevens, J., dissenting).

[387] *Id.* at 45.

[388] *Id.* at 47-48.

[389] *Id.* at 45.

[390] *See id.* at 33; *see also id.* at 44.

[391] *Id.* at 34.

[392] 476 U.S. 207 (1986).

[393] 488 U.S. 445 (1989).

[394] *Kyllo*, 533 U.S. at 33.

[395] *Id.* at 44-45 (Stevens, J., dissenting).

Justice Scalia did not overrule *Smith*, officials will still argue that the information they gathered from the home was "exposed" to a third party. Like the general public use question, the issue of "public exposure" is a malleable one, for one could view the homeowner as exposing his heat to the public just as he allegedly "exposed" his numbers to the public by allowing the telephone company to record this information. In short, one can easily argue that great tension exists between the analysis in *Kyllo* and *Smith.*

In the end, the numerous contrasting characterizations in *Kyllo* give the Court many options for writing future Fourth Amendment decisions as to the government's use of technology. The possibility of multiple constructions of what constitutes a Fourth Amendment "search" resonates with postmodern perspectives, particularly the perception that no grand theory exists to unify the legal arena. The *Kyllo* decision–perhaps like few others–so easily allows us to view the shifting constructions of the Fourth Amendment.

V. CONCLUSION

Since the adoption of the Fourth Amendment in 1791, the United States Supreme Court has repeatedly faced the question of how to interpret the Fourth Amendment when officials use new technology. The Court initially looked to property law when considering whether officials had acted unlawfully in listening to telephone conversations.[396] In 1967, the Court in *Katz* explicitly declared a new paradigm for its "search" doctrine because it could no longer "ignore the vital role that the public telephone [had] come to play in private communication."[397] It instead questioned whether the use of technology in the form of attaching an electronic bug to a public telephone booth invaded privacy. The Court's declared shift from a property to a privacy perspective mirrored the Court's shifting characterizations of which facts matter in a case.[398] In time,

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[396] *Id.* at 31-32.

[397] Katz v. United States, 389 U.S. 347, 352 (1967).

[398] *See, e.g.,* Maclin, *supra* note 114, at 405 (characterizing the "Court's method" for determining a "search" to be a "malleable, *ad hoc* test").

Fourth Amendment scholars (and some Supreme Court justices) complained that the Fourth Amendment jurisprudence was simply a "mess."[399]

One way to comprehend this "mess" is through the lens of postmodernism, which offers multiple perspectives on a given issue. In short, postmodernism anticipates the interpretive shifts, turns and "about-faces" in constructed legal doctrines. It also questions constructed doctrinal boundaries. For example, one may view an individual's interest in property, privacy, and personal security as encompassed by a single large circle. The "mess" may reflect the Court's selective highlighting (or selectively ignoring) certain aspects or issues within this broad sphere.[400] On the other hand, the "mess" may suggest that no "sphere" exists, except for the one constructed in a particular case. Under this view, the Court's "search" jurisprudence appears as a (constructed) fact-bound inquiry. Although the "mess" may reflect the Court's construction of an implicit spectrum for privacy, the Court's determination that no "search" occurred may signify that the officials' invasion of an individual's interest (whether in property, privacy or personal security) was at one end of the spectrum, representing nominal intrusions. Under this spectrum construction, the Court could later characterize a similar act to be a "search" because of how it characterizes additional factors, with the Court viewing the individual's interest as on another part of the spectrum. Other metaphorical constructions of the Court's "search" jurisprudence are possible because postmodernism allows us to view the Court's "search" jurisprudence from many perspectives, as it rejects the notion of a grand legal theory that acts as a restraint in decisionmaking.

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[399] In his essay for this symposium issue, Professor Clancy highlighted the malleability of the Court's "search" jurisprudence:

> The Court's expectation of privacy analysis has many flaws . . . . It accordingly leaves the fluid concept of privacy to the vagaries of shifting Court majorities, which are able to manipulate the concept to either expand or contract the meaning of the word at will. Indeed, it is difficult–if not impossible to say exactly what the word means. Thus, while a liberal Court substituted privacy in lieu of property analysis to expand protected interests, a conservative Court has employed privacy analysis as a vehicle to restrict Fourth Amendment protection.

Thomas K. Clancy, *Coping with Technological Change:* Kyllo *and the Proper Analytical Structure to Measure the Scope of Fourth Amendment Rights*, 72 MISS. L.J. 525, 533-34 (2002).

[400] For example, even when the *Katz* Court announced a privacy focus for a Fourth Amendment "search," it nevertheless added in a footnote that the Fourth Amendment protects property as well as privacy. *Katz*, 389 U.S. at 350 n.4.

The *Katz* "search" standard questioned whether a person subjectively and reasonably expected privacy. In applying this standard, the Court constructed several different views for officials' using sensory-enhancing devices. For example, it declared that officials' enhancing their visual capacities did not constitute a "search" unless the device recorded the presence of an object in the home for a lengthy period. Contrasting this wide breadth for technically enhanced visual surveillance was the Court's narrow view for officials' using their hands to "squeeze" luggage, a "search" *not* using technology. Tactile observation such as "squeezing" soft-sided luggage, was a "search" in part because the Court characterized it as more invasive than visual surveillance.

The Court also framed the public exposure strand of *Katz* differently, distinguishing between "private" information and "public" information. To illustrate, few people have access to an expensive map making camera; yet, for the Court, when officials flew over an industrial complex, the Court characterized map making technology as in the public domain, undermining an individual's expectation of privacy. In contrast, the Court held that a "search" occurred when officials "squeezed" soft luggage on a bus even though the traveling public routinely handles the luggage of fellow travelers. The Court created a narrower frame for tactile observation by questioning whether the public routinely touches luggage in an "exploratory manner."

The Court also created a special category for drug-detecting dogs sniffing luggage; this enhancement of officials' ability to smell drugs was not a "search." The Court did not question whether the public routinely uses dogs to sniff the luggage of other passengers; instead, the Court constructed a special *sui generis* class for this type of sense enhancement, characterizing the intrusion as minor, disclosing only limited information. By constructing an analogy to this "unique" class, the Court later extended this *sui generis* approach to the field testing of drugs.

The Court's latest chapter in the book of "search" jurisprudence–*Kyllo v. United States*–prominently reveals the Justices' conflicting characterizations of officials' using technology to investigate criminal activity. With some articulated limitations, a majority of the Court returned to the notion of a "constitutionally protected area," a prominent issue under its prior property paradigm. Five Justices held that officers conducted a "search" when using a thermal imager to scan Kyllo's home from a vehicle on public streets in front of and behind the house.[401] Although the imager measured heat loss, this emission was not "waste" or trash for the majority. (The dissent, in contrast, cited precedent that indicated that no "search" occurred when officials rummaged through opaque trash bags left outside the curtilage.)[402] Nor was the emission like the aroma arising from luggage exposed to dogs at an airport. (The majority did not refer to cases involving the *sui generis* paradigm–dog sniffs or field drug testing; the dissent did discuss this precedent.)[403] To protect privacy, the majority declared that all information shielded from the public's eye in the home was intimate, subject to Fourth Amendment protection, as long as the general public did not have access to the particular technology used by officials.[404] The majority viewed the thermal imager as revealing "intimate" information inside the home and characterized the public as not having access to thermal imagers.[405] (The dissent characterized the information as arising outside the home, questioned the creation of "public access" as an explicit factor and viewed the public as having access to thermal imagers.)[406]

The *Kyllo* majority thus built within its new "search" jurisprudence a question with an evolving response: whether the general public has access to the technology used by officials. The question of public access, when considered with the Court's general public exposure cases, will keep unsettled what is "public" and what is "private" information. The difficulty of drawing analogies from precedent discussing "public" exposure still remains, particularly when one compares the *Kyllo* decision with *Smith*, a case cited by both the majority and dissenting opinions in *Kyllo*.[407] In *Smith*, officers installed a pen register at a telephone company to record the local numbers a person dialed in his home.[408] In *Smith*, the Court held that the use of the pen register was not a "search;"[409] in *Kyllo*, the use of the thermal imager on the public streets to detect heat loss was a "search."[410] Even though the *Kyllo* majority cited *Smith*, the two cases seem in great tension: the *Smith* Court characterized the homeowner as voluntarily exposing the numbers dialed in the privacy of his home to the "public"; the *Kyllo* Court characterized the homeowner as retaining a privacy interest in not having officials learn of heat loss from this home. The *Kyllo* Court admitted that the "search" jurisprudence at times reflects backwards reasoning, determining that no "search" occurred in order to avoid applying other Fourth Amendment doctrines.

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[401] *Kyllo*, 533 U.S. at 41.

[402] *Id.* at 42 n.2.

[403] *See id.* at 47-48 (Stevens, J., dissenting).

[404] *Id.* at 37-38.

[405] *Id.* at 34-35.

[406] *Id.* at 42-43.

Even though the *Kyllo* majority explicitly identified public use as a factor, the Court could nevertheless emphasize different facts in the next "search" case involving the home.[411] Alternatively the Court could construct a new paradigm, just as it did in *Katz*, when it held that its prior standard failed to consider the current role of technology in society. The modern Court may view itself as similarly situated to the *Katz* Court;

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[407] *See id.* at 33; *see also id.* at 44 (Stevens, J., dissenting).

[408] Smith v. Maryland, 442 U.S. 735, 737 (1979).

[409] *Smith*, 442 U.S. at 746-47.

[410] *Kyllo*, 533 U.S. at 40.

[411] *See generally* Bd. of Ed. v. Earls, 122 S. Ct. 2559 (2002) (upholding drug testing of students' engaging in extracurricular activities). In *Earls*, the Court interpreted *Vernonia School Dist. 47J v. Acton*, 515 U.S. 646 (1995), which upheld the public schools' drug testing of athletes. *Earls*, 122 S. Ct. at 2560. Even though *Vernonia* extensively described the special risks that athletes face when they take drugs, the *Earls* Court stated that the distinction between athletes and other students engaging in extracurricular activities was not "essential" to its decision in *Vernonia*. *Id.* at 2561. Instead, the Court characterized *Vernonia* as focusing on the schools' responsibility and custodial duties. *Id.* at 2569.

Katz discarded *Olmstead,*[412] a case in which the Court held that the wiring tapping of a telephone in a home was not a "search" because no trespass occurred.[413] The modern Court may implicitly (or explicitly) discard the *Katz* standard, again viewing changes in technology and changes in society as requiring a different paradigm for constructing a Fourth Amendment "search." Such doctrinal changes from postmodernist perspectives do not compel us to cast aspersions on the Court, but rather to reflect on the inherent nature of constructed legal doctrines and their relationship to an evolving society.

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[412] Olmstead v. United States, 277 U.S. 438 (1928).

[413] *Katz*, 389 U.S. at 353.

ESSAY

Coping with Technological Change: *Kyllo* and the Proper Analytical Structure to Measure the Scope of Fourth Amendment Rights

Thomas K. Clancy[*]

INTRODUCTION

The Fourth Amendment protects "[t]he right of the people to be *secure* in their persons, houses, papers, and effects, against unreasonable searches and seizures."[1] In analyzing any Fourth Amendment issue, two separate questions must be answered: is the Amendment applicable; and, if so, is it satisfied? This essay focuses on the first question. Only by understanding the meaning of the term "secure" is it possible to determine the scope of the Fourth Amendment's protections for individuals and, correlatively, the amount of unregulated governmental power the Amendment allows. If one does not know what is protected by the Amendment, then it cannot be determined what the government can do. If one does know what is protected, any intrusion–either by a technological device or by use of the senses–should be considered a search and must be justified as reasonable. Thus, as one distinguished commentator has observed: "The key to the [A]mendment is the question of what interests it protects."[2]

There are three possible candidates for defining the scope of the Amendment's protections: property, privacy and security. Both the property and privacy approaches have proven to be inadequate. The Fourth Amendment speaks of the right to be secure, and I have previously proposed invigorating that term in an article entitled *What Does the Fourth Amendment Protect: Property, Privacy, or Security?*,[3] and using it as the proper measure of the protection afforded by the Amendment.[4] In my view, the Supreme Court's decision in *Kyllo v. United States*[5] represents a potentially giant step in that direction.

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[1] U.S. CONST. amend. IV (emphasis added).

[2] Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 385 (1974).

PROPERTY LAW ANALYSIS

The Fourth Amendment was a creature of the Eighteenth Century's strong concern for the protection of real and personal property rights against arbitrary and general searches and seizures.[6] That historical context has been viewed as a primary source for understanding the Amendment.[7] The English and colonial search and seizure abuses and the reaction to those abuses, which culminated in the adoption of the Fourth Amendment, have been retold often.[8] Although reaction to the arbitrary nature of British search and seizure procedures often focused on the techniques used, the practices were offensive because they impinged upon things held dear by those subjected to the searches or seizures, such as their persons, homes and private papers.[9] The consequent expression of the individual's rights was often phrased by reference to property, and the notion that "a man's house [is] his castle" became "a part of our constitutional law in the clauses prohibiting unreasonable searches and seizures."[10]

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[3] Thomas K. Clancy, *What Does the Fourth Amendment Protet: Property, Privacy, or Security?*, 33 WAKE FOREST L. REV. 307 (1998).

[4] This essay summarizes that *Wake Forest Law Review* article and updates it with the impact of *Kyllo v. United States*, 533 U.S. 27 (2001).

[5] 533 U.S. 27 (2001).

[6] *See generally* Edward L. Barrett, Jr., *Personal Rights, Property Rights, and the Fourth Amendment*, 1960 SUP. CT. REV. 46 (tracing the developments that resulted in interpreting the Fourth Amendment to afford greater protection to property rights than to personal liberty).

[7] *See* authorities cited in Clancy, *supra* note 3, at 309 n.9.

[8] *See generally* Thomas K. Clancy, *The Role of Individualized Suspicion in Assessing the Reasonableness of Searches and Seizures*, 25 U. MEM. L. REV. 483, 490-517 (1995) (discussing colonial and English developments). *See also* Weeks v. United States, 232 U.S. 383, 390 (1914) (the Fourth Amendment "took its origin in the determination of the framers" to create safeguards against those arbitrary and abusive invasions).

[9] *See, e.g.*, Entick v. Carrington, 19 Howell's State Trials 1029, 95 Eng. Rep. 807 (C.P. 1765) (holding invalid the invasion of a home and seizure of all private

Beginning with *Boyd v. United States*,[11] and extending to the latter third of the Twentieth Century, the Supreme Court defined the interest secured by the Fourth Amendment largely in terms of property rights.[12] Property rights analysis was used in two ways. First, in *Boyd*, the Court created a hierarchy of personal property rights, with the permissibility of a search or seizure premised on whether the government had a superior interest in the thing to be searched or seized.[13] Based on that hierarchy, often referred to as the mere evidence rule, the Court refused to sanction any search or seizure of certain objects, regardless of the procedures utilized. Second, beginning with *Olmstead v. United States*,[14] the Court used property law to define constitutionally protected areas and limited the Fourth Amendment inquiry to the protection of tangible items from physical invasions.[15] Based on that restrictive doctrine, the government had a great deal of freedom to utilize new technology to investigate without implicating the Amendment.

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papers pursuant to a general warrant); Wilkes v. Wood, 98 Eng. Rep. 489, 498 (K.B. 1763) (opining that the power to issue general warrants might "affect the person and property of every man in this kingdom, and [would be] totally subversive of the liberty of the subject"); Huckle v. Money, 95 Eng. Rep. 768, 769 (K.B. 1763) ("To enter a man's house by virtue of a nameless warrant, in order to procure evidence, is worse than the Spanish Inquisition; a law under which no Englishman would wish to live an hour . . . .").

[10] *Weeks*, 232 U.S. at 390. This view is shared by commentators. *See, e.g.*, Osmond K. Fraenkel, *Concerning Searches and Seizures*, 34 HARV. L. REV. 361, 364-65 (1921) (opining that it was "apparent" that the Fourth Amendment embodied the principle in English liberty that found "expression in the maxim 'every man's home is his castle'").

[11] 116 U.S. 616 (1886).

[12] *See generally* Clancy, *supra* note 3, at 309-27; Morgan Cloud, *The Fourth Amendment During the* Lochner *Era: Privacy, Property and Liberty in Constitutional Theory*, 48 STAN. L. REV. 555, 578-81 (1996).

[13] *Boyd*, 116 U.S. at 623-24.

[14] 277 U.S. 438 (1928).

[15] Olmstead v. United States, 277 U.S. 438, 464-65 (1928).

The requirement of a physical invasion into a protected place remained a cornerstone Fourth Amendment principle until *Katz v. United States*[16] in 1967.[17] Pursuant to that property-based analysis, the Court divided the world into those areas that were constitutionally protected and those that were not, compiling a list of each.[18] "At the very core [stood] the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion."[19] Expanding on the justification for that core area, the Court explained:

> A man can still control a small part of his environment, his house; he can retreat thence from outsiders, secure in the knowledge that they cannot get at him without disobeying the Constitution. That is still a sizable hunk of liberty—worth protecting from encroachment. A sane, decent, civilized society must provide some such oasis, some shelter from public scrutiny, some insulated enclosure, some enclave, some inviolate place which is a man's castle.[20]

It was within the defined constitutionally protected areas that a person could be secure:

> What the Fourth Amendment protects is the security a man relies upon when he places himself or his property within a constitutionally protected area, be it his home or his office,

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[16] 389 U.S. 347 (1967).

[17] *Katz*, 389 U.S. at 353.

[18] *See* Lanza v. New York, 370 U.S. 139, 143 (1962). In rejecting a claim that a prison cell was a constitutionally protected area, the Court gave a partial list of areas which were protected:

> A business office is a protected area, and so may be a store. A hotel room, in the eyes of the Fourth Amendment, may become a person's "house," and so, of course, may an apartment. An automobile may not be unreasonably searched. Neither may an occupied taxicab. Yet, without attempting either to define or to predict the ultimate scope of Fourth Amendment protection, it is obvious that a jail shares none of the attributes of privacy of a home, an automobile, an office, or a hotel room. In prison, official surveillance has traditionally been the order of the day.

Id. (footnotes omitted).

[19] Silverman v. United States, 365 U.S. 505, 511-12 (1961).

[20] *Silverman*, 365 U.S. at 511 n.4 (quoting United States v. On Lee, 193 F.2d 306, 315-16 (2d Cir. 1951) (Frank, J., dissenting), *aff'd*, 343 U.S. 747 (1952)).

> his hotel room or his automobile. There he is protected from unwarranted governmental intrusion. And when he puts something in his filing cabinet, in his desk drawer, or in his pocket, he has the right to know it will be secure from an unreasonable search or an unreasonable seizure.[21]

The cases consistently turned on the determination of whether the government had physically entered a protected area.[22] Thus, where a hotel room was separated from a room occupied by federal agents by two doors with a small air space between the rooms and the agents taped a microphone to the door on their side,[23] or where the agents placed a sensitive receiver against a partition wall,[24] the Court concluded that no Fourth Amendment rights were violated because there was no physical intrusion into the suspect's room, which was the constitutionally protected area.[25] On the other hand, when a "spike mike" was inserted into the party wall until it contacted the heating duct serving the suspect's house, thus converting the entire heating system into a conductor of sound, that minor physical intrusion triggered the applicability of the Fourth Amendment.[26]

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[21] Hoffa v. United States, 385 U.S. 293, 301 (1966) (footnote omitted).

[22] *See, e.g., Silverman*, 365 U.S. at 510-12 (cataloguing cases and recognizing that the presence or absence of a physical invasion into a constitutionally protected area was the vital consideration).

[23] *See* Desist v. United States, 394 U.S. 244, 245 n.2 (1969). The Court refused to apply *Katz* retroactively, stating that "to the extent *Katz* departed from previous holdings of this Court, it should be given wholly prospective application." *Id.* at 246.

[24] *See* Goldman v. United States, 316 U.S. 129, 131 (1942), *overruled in part by Katz*, 389 U.S. at 347.

[25] *See also* Kaiser v. New York, 394 U.S. 280, 281-82 (1969) (refusing to apply *Katz* retroactively and finding no violation of the Fourth Amendment when a listening device that recorded a phone conversation in a bar was attached to a central terminal in the basement of the building in which the bar was located); *cf.* On Lee v. United States, 343 U.S. 747, 751-52 (1952) (holding that where an undercover agent wearing a body wire that transmitted conversations was in another's home by consent, no trespass was committed, and the introduction of conversations into evidence did not violate the Fourth Amendment).

[26] *See Silverman*, 365 U.S. at 506-09 (explaining that the Court need not worry about the future technological development of listening devices employed by the police because the case at hand involves "physical penetration into the premises occupied by the petitioners").

PRIVACY ANALYSIS

Underlying *Boyd* and *Olmstead* were two conflicting visions of the Fourth Amendment, with the former advocating a liberal construction and the latter a literal one. However, because *Olmstead* primarily concerned the areas into which the government could intrude,[27] and *Boyd* primarily concerned what objects could be permissibly seized,[28] they did not directly collide. Both of those lines of authority coexisted uneasily until 1967, when the Court rejected property analysis and substituted privacy analysis to measure the scope of the Fourth Amendment's protections. *Warden v. Hayden*[29] dismantled the mere evidence rule, rejecting any hierarchy of property rights and any substantive restrictions on the ability of the government to search personal property.[30] *Katz v. United States*,[31] the better known but less articulately reasoned case, rejected *Olmstead's* view that the country was divided into two areas—those that were constitutionally protected and those that were not.[32] Both *Hayden* and *Katz* asserted that privacy, not property, was the centralizing principle upon which Fourth Amendment rights were premised.[33]

In *Katz*, federal agents placed an electronic listening and recording device outside a public phone booth, from which Katz placed his calls.[34] In announcing that the Fourth Amendment protected people and not places,[35] the Court stated:

> It is true that the absence of [physical] penetration was at one time thought to foreclose further Fourth Amendment inquiry . . . for that Amendment was thought to limit only searches and seizures of tangible property. But "[t]he premise that property interests control the right of the Government to

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[27] *See Olmstead*, 277 U.S. at 464-66.
[28] *See Boyd*, 116 U.S. at 622-24.
[29] 387 U.S. 294 (1967).
[30] *Warden*, 387 U.S. at 305-10.
[31] 389 U.S. 347 (1967).
[32] *Katz*, 389 U.S. at 351-53.
[33] *Hayden*, 387 U.S. at 301-02; *Katz*, 389 U.S. at 351-52.
[34] *Katz*, 389 U.S. at 348.
[35] *Id.* at 351.

> search and seize has been discredited." . . . Thus, although a closely divided Court supposed in *Olmstead* that surveillance without any trespass and without the seizure of any material object fell outside the ambit of the Constitution, we have since departed from the narrow view on which that decision rested. Indeed, we have expressly held that the Fourth Amendment governs not only the seizure of tangible items, but extends as well to the recording of oral statements overheard without any "technical trespass under . . . local property law." . . . Once this much is acknowledged, and once it is recognized that the Fourth Amendment protects people—and not simply "areas"—against unreasonable searches and seizures it becomes clear that the reach of that Amendment cannot turn upon the presence or absence of a physical intrusion into any given enclosure.[36]

The Court's analysis was not sweeping. It did not acknowledge the depth of the precedent following *Olmstead* and expended little effort rejecting *Olmstead*'s reliance on the twin premises that the Constitution protects only some areas and that the protections extend only to physical invasions.[37]

The Court thereafter adopted and employed the reasonable expectation of privacy test to define, at least in large part, the Amendment's protections.[38] That test requires that a person exhibit an actual subjective expectation of privacy and that this expectation be one that society recognizes as reasonable.[39] If either prong is missing, no protected interest is established.[40]

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[36] *Id.* at 352-53 (citations and footnotes omitted).

[37] *Id.* at 352-53.

[38] *Id.* at 360-62 (Harlan, J., concurring). *See, e.g.,* Maryland v. Garrison, 480 U.S. 79, 90-91 (1987) (Blackmun, J., dissenting) (noting that Justice Harlan articulated "the proper test" in *Katz*); California v. Ciraolo, 476 U.S. 207, 214 (1986) (stating that "Justice Harlan made it crystal clear that he was resting on the reality that one who enters a telephone booth is entitled to assume that his conversation is not being intercepted"); Smith v. Maryland, 442 U.S. 735, 740 (1979) (stating that the Harlan test "embraces two discrete questions").

[39] *See Katz*, 389 U.S. at 361 (Harlan, J., concurring). The Court in subsequent cases has sometimes used other words, such as "legitimate" and "justifiable" as substitutes for "reasonable," but those terms do not have a different meaning. *See, e.g., Ciraolo*, 476 U.S. at 219-20 n.4 (Powell, J., dissenting); *Smith*, 442 U.S. at 740.

[40] *See Katz*, 389 U.S. at 361 (Harlan, J., concurring). Harlan concluded that

One fundamental aspect of Supreme Court analysis until *Katz* was the relational aspect of the concept of security: a person was secure in specified objects—one's person, house, papers and effects.[41] That analysis was, of course, driven by the language of the Amendment. For example, the Court had established in *Hester v. United States*[42] that the Amendment did not apply to open fields.[43] That decision was premised not on a definition of the word "secure," but on excluding open fields from the list of objects specified by the Amendment as protected.[44] That is, an open field was not included in the concept of a person, house, paper or effect.[45] *Katz* decoupled that relationship with a broad substitution of privacy: people, not places were protected, regardless of where that person was.[46]

The Court created a hierarchy of privacy interests by using several different techniques.[47] One technique has been to find that the effect of modern life, with its technological and other advances, serves to eliminate or reduce a person's justified expectation of privacy.[48] The Court's reaction to aircraft flyovers, which may observe activities within the fenced curtilage of a home, illustrates this technique.[49] The Court has found that "[i]n an age where private and commercial flight in the public airways is routine," it is unreasonable to expect privacy from the air.[50] Similarly, in finding that no legitimate expectation of privacy was impinged by taking aerial photographs of the smokestacks of an industrial complex, the Court reasoned: "Any person with an airplane and an aerial camera could readi-

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the physical trespass theory was "bad physics as well as bad law, for reasonable expectations of privacy may be defeated by electronic as well as physical invasion." *Id.* at 362 (Harlan, J., concurring).

[41] *See* Olmstead v. United States, 277 U.S. 438, 464 (1928).

[42] 265 U.S. 57 (1924).

[43] *Hester*, 265 U.S. at 59.

[44] *See id.* at 59.

[45] *See id.*

[46] *See Katz*, 389 U.S. at 351.

[47] *See* Clancy, *supra* note 3, at 329-39.

[48] *See, e.g.,* California v. Ciraolo, 476 U.S. 207, 215 (1986) (finding that in an age where commercial flights are routine, it is unreasonable for an individual to expect marijuana plants to be constitutionally protected from aerial observation).

[49] *Id.* at 213-14.

[50] *Id.* at 215.

ly duplicate [such photos] . . . . [T]he technology of photography has changed in this century . . . enhanc[ing] industrial processes, and . . . law enforcement techniques."[51] Thus, the overall tendency of the Court–prior to *Kyllo*–has been to contract the protected individual interest as a consequence of modern technological advances and their utilization by the government.[52]

Another method has been the Court's use of an empirical approach to determine what constitutes a legitimate expectation of privacy. An empirical approach examines whether an act is observable and concludes from that factual analysis whether the individual has a protected interest.[53] For example, the Court has stated that because police officers could see marijuana plants when they flew over a homeowner's backyard, the homeowner had no reasonable expectation of privacy.[54] The Court viewed the police's actions as "simple visual observations from a public place."[55]

The Court's expectation of privacy analysis has many flaws,[56] including its lack of textual support in the language of the Amendment. It accordingly leaves the fluid concept of privacy to the vagaries of shifting Court majorities, which are able to manipulate the concept to either expand or contract the meaning of the word at will.[57] Indeed, it is difficult—if not

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[51] Dow Chem. Co. v. United States, 476 U.S. 227, 231 (1986).

[52] *See, e.g.,* United States v. Karo, 468 U.S. 705, 712-18 (1984) (holding that it is permissible to use a beeper in a container of goods sold to the person to monitor its location so long as the container is outside the home); *see also* Smith v. Maryland, 442 U.S. 735, 743-44 (1979) (finding that installation of a device to record phone numbers dialed on a person's telephone was not a search).

[53] *See, e.g.,* California v. Greenwood, 486 U.S. 35, 40 (1988) (finding that there was no reasonable expectation of privacy in trash left for collection because the garbage bags were readily accessible to animals, children, scavengers, snoops, and other members of the public, and because it was left for a third party to collect).

[54] *See Ciraolo*, 476 U.S. at 213-14.

[55] *Id.* at 214; *accord* Florida v. Riley, 488 U.S. 445, 449-51 (1989) (plurality opinion).

[56] The academic critics are legion. *See, e.g.,* authorities cited in Clancy, *supra* note 3, at 339 n.234.

[57] *See* Katz v. United States, 389 U.S. 347, 373 (1967) (Black, J., dissenting).

> By clever word juggling the Court finds it plausible to argue that language aimed specifically at searches and seizures of things that can be searched and seized may, to protect privacy, be applied to eavesdropped evidence of conversations that can neither be searched nor seized. Few

impossible—to say exactly what the concept means.[58] Thus, while a liberal Court substituted privacy in lieu of property analysis to expand protected interests, a conservative Court has employed privacy analysis as a vehicle to restrict Fourth Amendment protections.

The Court has too readily made privacy expectations contingent on technology, empiricism and government regulation, highlighting the problem of relying on privacy to define the person's protected interest. Given that the number and variet-

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> things happen to an individual that do not affect his privacy in one way or another. Thus, by arbitrarily substituting the Court's language, designed to protect privacy, for the Constitution's language, designed to protect against unreasonable searches and seizures, the Court has made the Fourth Amendment its vehicle for holding all laws violative of the Constitution which offend the Court's broadest concept of privacy.

Id. (Black, J., dissenting); *see also* Nixon v. Adm'r of Gen. Servs., 433 U.S. 425, 545 n.1 (1977) (Rehnquist, J., dissenting) (stating that "[t]he concept of 'privacy' can be a coat of many colors"); Berger v. New York, 388 U.S. 41, 76-77 (1967) (Black, J., dissenting) (criticizing the Court's use of privacy to define the protections of the Amendment and asserting that the right of privacy, "like a chameleon, has a different color for every turning," arguing that the use of the word simply gave the Court a useful tool to "usurp the policy-making power of the Congress and to hold more state and federal laws unconstitutional"); Griswold v. Connecticut, 381 U.S. 479, 509 (1965) (Black, J., dissenting) (arguing that privacy is such a "broad, abstract and ambiguous concept" that could easily be "shrunken in meaning" or could be used broadly); Lewis R. Katz, *In Search of a Fourth Amendment for the Twenty-first Century,* 65 IND. L.J. 549, 556 (1990) (claiming that the privacy test "leaves room for broad swings of judicial interpretation and maneuvering").

[58] A recent effort by a distinguished Task Force of the American Bar Association simply gave up on attempting to define privacy.

> [T]he Task Force, like the courts, came to see privacy as a multi-factor concept, and thus ultimately defined privacy by simply listing relevant considerations. Although this approach obviously lacks the clarity that the Task Force had hoped to provide, the group concluded that it was the best way to define privacy: there are simply too many permutations involving technology to permit bright-line statements about activities or conditions that deserve the Constitution's greatest protection.

Christopher Slobogin, *Technologically-assisted Physical Surveillance: The American Bar Association's Tentative Draft Standards*, 10 HARV. J.L. & TECH. 383, 439-40 (1997); *see also* James J. Tomkovicz, *Beyond Secrecy for Secrecy's Sake: Toward an Expanded Vision of the Fourth Amendment Privacy Province*, 36 HASTINGS L.J. 645, 662-63 (1985) ("Privacy's amorphous nature and chameleon-like capacity to describe disparate interests makes it a somewhat problematic concept, preventing definition of the term that is both comprehensive and comprehensible.") (footnotes omitted).

ies of official intrusions into individuals' lives has increased exponentially as a result of the increasing complexities of society, the Court's willingness to reduce privacy expectations will too often lead to the conclusion that no protected individual interest has been invaded by the government. Use of an empirical approach in conjunction with permitting technological advances to reduce a person's protected interest inextricably leads to a smaller and smaller oasis of protection afforded by the Amendment. It may be possible to observe a homeowner's activities from an airplane, and, in that sense, viewing one's home from an airplane is not private. However, it is not so obvious that the homeowner has relinquished his right to be secure—that is, if normative values invigorate the concept of security.[59]

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[59] For example, Justice Powell, dissenting in *Ciraolo*, adopted a normative approach and maintained that, even if the actions could be observed, a reasonable expectation of privacy should be found based on standards to measure legitimacy. California v. Ciraolo, 476 U.S. 207, 220 n.5 (1986) (Powell, J., dissenting). Such standards include real property law, personal property law and "'understandings that are recognized or permitted in society.'" *Id.* (Powell, J., dissenting) (quoting Rakas v. Illinois, 439 U.S. 128, 143 n.12 (1978)).

The inquiry "necessarily focuses on personal interests in privacy and liberty recognized by a free society." *Id.*; *see also* Florida v. Riley, 488 U.S. 445, 456 (1988) (Brennan, J., dissenting) (arguing that any conclusion that a reasonable expectation of privacy exists ultimately depends on the judgment "whether, if the particular form of surveillance practiced by the police is permitted to go unregulated by constitutional restraints, the amount of privacy and freedom remaining to citizens would be diminished to a compass inconsistent with the aims of a free and open society") (quoting Amsterdam, *supra* note 2, at 403); California v. Greenwood, 486 U.S. 35, 53-54 (1988) (Brennan, J., dissenting) (arguing that the police are required to "adhere to norms of privacy that members of the public plainly acknowledge," and concluding that a person has a reasonable expectation of privacy in trash left for collection); Dow Chem. Co. v. United States, 476 U.S. 227, 248-49 (1986) (Powell, J., concurring in part and dissenting in part) (using trade secret laws to justify the conclusion that an expectation of privacy was reasonable); *cf.* Jerome Atrens, *A Comparison of Canadian and American Constitutional Law Relating to Search and Seizure*, 1 SW. J.L. & TRADE AM. 29, 34-35 (1994) (contrasting the empirical approach of the United States Supreme Court in measuring a reasonable expectation of privacy with the normative approach of the Canadian Supreme Court); Katz, *supra* note 57, at 564 (arguing that the Court has turned the principle of knowing exposure to the public into a simple assumption-of-risk test, resulting in stripping the individual of a "great measure of fourth amendment protection" due to "living in a high-tech society," thereby stripping the Fourth Amendment of its "normative values").

The most important and fundamental flaw in the Court's reliance on privacy analysis is that the inquiry has abandoned the structure of the Fourth Amendment and is based on confusing motivation for exercising the right to be secure with the right itself. As discussed below, the interest of individuals protected by the Fourth Amendment's right to be secure cannot be adequately described by reliance on a privacy analysis.

THE RIGHT TO BE SECURE

A.

The Fourth Amendment speaks of the right to be secure and, in my view, is the proper measure of the protection afforded by the Amendment. Common themes and values underlay the concept of security throughout history. The term "secure" in a non-Fourth Amendment context has been associated with being safe or free from danger. The principal dictionary definitions of the word have changed little in the past two hundred years. Samuel Johnson's dictionary offered several definitions of the word, including "free from fear," "sure, not doubting," and "free from danger, that is, safe."[60] Similarly, he defined "to secure" to include the following: "to make certain"; "to put out of hazard"; "to protect"; "to make safe"; and "to insure."[61] The Oxford English Dictionary states that the word "secure" is derived from Latin and in late Latin meant "safe, free from danger."[62] That dictionary, with abundant references to literature and other written works dating to the colonial era, defines "secure," *inter alia*, as meaning—as to times, places, and actions—"being free from fear or anxiety."[63] Similarly, the word connotes having or affording ground for confidence and being safe.[64] As a verb, the word is used to convey the meaning "to make safe, to guard, or to protect."[65] To illustrate, the Oxford Dictionary offered this usage from 1754: "A very safe road, secured from all winds."[66] From 1756, it employed this usage: "Is the Watch doubled? Are the Gates secur'd [sic] Against Surprize [sic]?"[67] And from 1784, it used this reference: "The hedge-hog, so well secured against all assaults by his prickly hide."[68] Indeed, Blackstone defined property as "that sole and despotic dominion which one . . . claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe."[69]

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[60] JOHNSON'S DICTIONARY OF THE ENGLISH LANGUAGE (1st Am. ed. 1819).
[61] *Id.*
[62] XIV OXFORD ENGLISH DICTIONARY 851 (2d ed. 1989).
[63] *Id.*
[64] *See id.*
[65] *Id.* at 852.

The word "secure" does not lose its common meaning when used by the Fourth Amendment. However, for the Framers, it took on an additional, contextual meaning when used by the Amendment: the security was (1) from unreasonable governmental intrusion, and (2) the right applied only to specific objects—persons, houses, papers and effects.

1.

As to the first relation, security from unreasonable governmental intrusion, the Framers were referring to the ability to exclude the government. The court in *Entick v. Carrington*[70] inextricably linked security with the ability to exclude. After stating that the great end for which men had entered into society was to "secure" their property, Lord Camden asserted: "No man can set his foot upon my ground without my licence [sic]."[71] In 1766, in a speech before Parliament, William Pitt similarly emphasized the right to exclude:

> The poorest man may, in his cottage, bid defiance to all the forces of the Crown. It may be frail; its roof may shake; the wind may blow through it; the storm may enter; but the King of England may not enter; all his force dares not cross the threshold of the ruined tenement.[72]

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[66] *Id.*

[67] *Id.*

[68] *Id.*

[69] Daniel B. Yeager, *Search, Seizure and the Positive Law: Expectations of Privacy Outside the Fourth Amendment*, 84 J. CRIM. L. & CRIMINOLOGY 249, 270-71 (1993) (quoting 2 WILLIAM BLACKSTONE, COMMENTARIES *2).

[70] 19 Howell's State Trials 1029, 1066, 95 Eng. Rep. 807 (C.P. 1765).

[71] *Id.*

[72] NELSON B. LASSON, THE HISTORY AND DEVELOPMENT OF THE FOURTH

Across the Atlantic, the use of the word "secure" by the American colonists, expressing dismay with British search and seizure practices, related to the arbitrary exercise of power to invade their property; security, for them, was the ability to prevent such invasions. In 1762, in his argument against the writs of assistance, which allowed customs officials in Massachusetts to search anywhere they desired, James Otis argued that the writ "is against the fundamental principles of law, the privilege of house. A man, who is quiet, is as secure in his house as a prince in his castle . . . ."[73] Similarly, a contemporaneous newspaper article recounting the evils of the writs asserted that, if the writs were to be granted, "every househoulder [sic] in this province, will necessarily become less secure than he was before this writ" because it would permit any officer to forcibly enter into a dwelling house and rifle every part of it.[74] Appearing in the Philadelphia press in 1768, and subsequently made widely available, was one of John Dickinson's "Farmer's Letters," which criticized the writs of assistance as "dangerous to freedom, and expressly contrary to the common law, which ever regarded a man's *house* as his castle, or a place of perfect security."[75] In a meeting of the inhabitants of Boston on November 2, 1772, a committee was appointed "to state the Rights of the Colonists."[76] The committee report, published by order of the town, attacked the writs of assistance as giving "absolute and arbitrary" power to customs officials to search anywhere they pleased.[77] The report concluded:

> Thus our Houses, and even our Bed-Chambers, are exposed to be ransacked, our Boxes, Trunks and Chests broke open,

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AMENDMENT TO THE UNITED STATES CONSTITUTION 49-50 (Johns Hopkins Press 1937).

[73] JOSIAH QUINCY, JR., REPORTS OF CASES ARGUED AND ADJUDGED IN THE SUPERIOR COURT OF JUDICATURE OF THE PROVINCE OF MASSACHUSETTS BAY BETWEEN 1761 AND 1772, at 471 (1865).

[74] *Id.* at 489 (quoting BOSTON GAZETTE, Jan. 4, 1762).

[75] M.H. SMITH, THE WRITS OF ASSISTANCE CASE 493 (1978).

[76] QUINCY, *supra* note 73, at 466.

[77] *Id.* at 467.

> ravaged and plundered, by Wretches, whom no prudent Man would venture to employ even as Menial Servants; whenever they are pleased to say they suspect there are in the House, Wares, [etc.] for which the Duties have not been paid. Flagrant instances of the wanton exercise of this Power, have frequently happened in this and other seaport Towns. By this we are cut off from that domestic security which renders the Lives of the most unhappy in some measure agreeable. These Officers may under the color of Law and the cloak of a general warrant, break through the sacred Rights of the Domicil, ransack Mens [sic] Houses, destroy their Securities, carry off their Property, and with little Danger to themselves commit the most horrid Murders.[78]

Thus, there was clear historical precedent for use of the term "secure." The word was not an innovation of the Framers, and it was not used by accident. The Framers valued security and intimately associated it with the ability to exclude the government.

After eliminating the gloss of the Supreme Court's property and privacy analyses, the underlying common theme that the Amendment protects the right to exclude has appeared often in the Court's opinions. Although the physical trespass theory of *Olmstead* and its progeny was too narrow because it only protected against physical invasions, that protection was the ability to exclude unreasonable intrusions.[79]

The post-*Katz* era Court has confused reasons for exercising the right protected with the right itself. A purpose of exercising one's Fourth Amendment rights might be the desire for privacy, but the individual's motivation is not the right protected. Indeed, one concept of privacy is simply the power "' . . . to control access by others to a private object (to a private place, to information, or to an activity). [It] is the ability to maintain the state of being private or to relax it as, and to the degree that, and to whom one chooses.'"[80] Is this not to say that people have the power to exclude? If privacy is only the power to exclude, then there is no reason to refer to the concept, which serves only to confuse what the individual's right is, particularly given the many uses that "privacy" has.[81]

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[78] *Id.*

[79] *See, e.g.,* Silverman v. United States, 365 U.S. 505, 511 n.4 (1961) (quoting United States v. On Lee, 193 F.2d 306, 315-16 (2d Cir. 1951) (Frank, J., dissenting), *aff'd,* 343 U.S. 747 (1952)).

[80] Lawrence A. Benner, *Diminishing Expectations of Privacy in the Rehnquist*

The right to be secure permits one to do as one wishes for whatever reasons that motivate the person.[82] The Fourth Amendment is an instrument—a gatekeeper that keeps out the government. The gatekeeper does not ask why one desires to exclude the government; it simply follows orders.[83] As a gatekeeper, the Amendment permits other rights to flourish. However, the purpose of exercising one's Fourth Amendment rights neither adds to nor detracts from the scope of the protection afforded by the Amendment.

The privacy era cases have value because they afforded protection to intangible interests against non-physical intrusions. But it was this concern with extending protection to intangible interests and guarding against non-physical invasions that served to distort Fourth Amendment doctrine. Rather than recognizing that intangible objects must be protected against non-physical invasions, the Court went wildly astray by

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Court, 22 J. MARSHALL L. REV. 825, 855 (1989), quoting STANLEY I. BENN, A THEORY OF FREEDOM 266 (1988); *see also* Note, *Protecting Privacy Under the Fourth Amendment*, 91 YALE L.J. 313, 329 (1981) ("The essence of privacy is twofold: the ability to keep personal information unknown to others and to keep one's self separate from interaction with others.").

[81] *Cf.* Yeager, *supra* note 69, at 284 ("Whatever privacy means, it surely must include the right to exclude others.").

[82] *Cf. Bowers v. Hardwick*, 478 U.S. 186, 206-08 (1986) (Blackmun, J., dissenting) (arguing that the purpose for the Fourth Amendment protecting the home "is more than merely a means of protecting specific activities that often take place there"); *Warden v. Hayden*, 387 U.S. 294, 301 (1967) ("On its face, the [Fourth Amendment] assures the 'right of the people to be secure in their persons, houses, papers, and effects' . . . without regard to the use to which any of these things are applied."); Lloyd L. Weinreb, *Generalities of the Fourth Amendment*, 42 U. CHI. L. REV. 47, 85 (1974) ("It would misconceive the great purpose of the [A]mendment to see it primarily as the servant of other social goods, however large and generally valuable.").

[83] *Cf.* Charles A. Reich, *The New Property*, 73 YALE L.J. 733, 771 (1964) ("Property draws a circle around the activities of each private individual or organization. Within that circle, the owner has a greater degree of freedom than without. Outside, he must justify or explain his actions, and show his authority. Within, he is master, and the state must explain and justify any interference.").

rejecting the Fourth Amendment's structure and superimposing a privacy analysis. It does not, however, require reworking the entire Fourth Amendment to reject *Olmstead*'s limitations on the protections afforded as being inconsistent with the Framers' intent.[84]

The Court prior to *Kyllo* acknowledged, at least in part, the failings of privacy analysis. Thus, for example, it identified three interests protected by the Amendment: privacy, possession of property, and freedom of movement.[85] For each of these interests, the essential attribute of the right to be secure is the *ability* of the individual to exclude the government from intruding. Thus, as to a search, one may exercise the right to prevent the intrusion; as to seizure of property, the individual may exercise the right to remain in possession; and, as to seizure of a person, one may exercise the right to continue with one's itinerary. In each case, there is an exercise of the ability to exclude the government from interfering with one's person, house, papers, or effects. This ability to exclude is so essential to the exercise of the right to be secure that it is proper to say that it is equivalent to the right—the right to be secure *is* the right to exclude. Without the ability to exclude, a person has no security. With the ability to exclude, a person has all that the Fourth Amendment promises: no non-justified intrusions by the government. In other words, the Fourth Amendment gives the right to say no to the government's attempts to search and seize. Privacy, human dignity, a dislike for the government, and other states of mind may be motivations for exercising the right to exclude, but they are not synonymous with that right or with aspects of the right. The right to exclude is the sum and essence of the right protected. Of course, the right is not absolute. It extends only to protect against *unreasonable* searches and seizures.

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[84] *Cf.* California v. Hodari D., 499 U.S. 621, 627 n.3 (1991) ("What *Katz* stands for is the proposition that items which could not be subject to seizure at common law (e.g., telephone conversations) can be seized under the Fourth Amendment.").

[85] *See* Soldal v. United States, 506 U.S. 56 (1992).

2.

As to the second relation, the concept of security cannot be divorced from the object protected. The meaning of security will vary somewhat in relation to the protected interest specified by the Amendment: persons, houses, papers, or effects.[86] However, the core concept remains the right to exclude. Privacy analysis purported to abandon reliance on the principle of constitutionally protected areas, with *Katz* asserting that the Amendment protects people, not places.[87] Such a claim simply ignores the language and structure of the Amendment: people have the right to be secure only as to their persons, houses, papers, and effects.

When speaking of a seizure of the person, even in *Katz* the Court acknowledged that the Amendment protected interests other than privacy:

> The average man would very likely not have his feelings soothed any more by having his property seized openly than by having it seized privately and by stealth. . . . And a person can be just as much, if not more, irritated, annoyed and injured by an unceremonious public arrest by a policeman as he is by a seizure in the privacy of his office or home.[88]

The person on the street, patently, has no property or privacy interests implicated by an unreasonable seizure. Something else must underlie the Fourth Amendment right to be secure in that context.[89] This is why the Court in *Terry v. Ohio*[90] placed such emphasis on the "inestimable right of personal security," which "belongs as much to the citizen on the streets of our cities as to the homeowner closeted in his study to dispose of his secret affairs."[91] Indeed, the Court said that "'[n]o right is held more sacred, or is more carefully guarded . . . than the right of every individual to the possession and control of his own person.'"[92] The Court has variously described that underlying personhood interest, using such terms as "dignity,"[93] freedom of movement,[94] or the right to be left alone.[95] However, though such concerns may motivate the individual's exercise of the Fourth Amendment right, that right does no more than prohibit the government from intruding upon the person without sufficient justification. Thus, the core concept, the right to exclude, remains—the ability of the individual to refuse to accede to the government intrusion.

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[86] *Cf.* Vernonia Sch. Dist. 47J v. Acton, 515 U.S. 646, 672-73 (1995) (O'Connor, J., dissenting) (stressing as important in the analysis of permissibility of the collection of urine to test for drugs that it is a search of a person, and thus one of the four categories of searches the Fourth Amendment lists by name); Katz v. United States, 389 U.S. 347, 361 (1967) (Harlan, J., concurring) (stating that although the Fourth Amendment protects people, not places, "[g]enerally . . . the answer to that question requires reference to a 'place'").

[87] *See Katz*, 389 U.S. at 351.

[88] 389 U.S. at 350 n.4 (quoting *Griswold v. Connecticut*, 381 U.S. 479, 509 (1965) (Black, J., dissenting)).

[89] *Cf.* Tracey Maclin, *The Decline of the Right of Locomotion: The Fourth Amendment on the Streets*, 75 CORNELL L. REV. 1258, 1261, 1328-30 (1990) (stating that the right of locomotion is grounded "in two fundamental commitments in

As to searches of the person, the essential right is the right to exclude government agents from intruding into her body. Speaking in terms of a "dignity" interest or other interest confuses the issue. For example, in *Skinner v. Railway Executives' Ass'n*,[96] Justice Marshall observed: "Compelling a person to produce a urine sample on demand . . . intrudes deeply on privacy and bodily integrity. Urination is among the most private of activities. It is generally forbidden in public, eschewed as a matter of conversation, and performed in places designed

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the fourth amendment's prohibition against unreasonable seizures[:] . . . 'the right to be let alone' . . . [and the] protection of personal security") (quoting *Olmstead*, 277 U.S. at 478 (Brandeis, J., dissenting)).

[90] 392 U.S. 1 (1968).

[91] *Terry*, 392 U.S. at 8-9.

[92] *Id.* at 9.

[93] *See, e.g.*, Schmerber v. California, 384 U.S. 757, 767 (1966) (stating that "[t]he overriding function of the Fourth Amendment is to protect personal privacy and dignity against unwarranted intrusion by the State.").

[94] *See, e.g.*, Brower v. County of Inyo, 489 U.S. 593, 597 (1989) (Fourth Amendment seizure occurs "when there is a governmental termination of freedom of movement *through means intentionally applied*").

[95] *See, e.g.*, California v. Ciraola, 476 U.S. 207, 226 (1986) (stating that the Court has "consitently afforded heightened protection to a person's right to be left alone in the privacy of his house.")

[96] 489 U.S. 602 (1989).

to preserve this tradition of personal seclusion."[97] Marshall went on to observe that the violation of one's privacy while performing an excretory function has been viewed as "'extremely distressing, as detracting from one's dignity and self esteem.'"[98] Such concerns, however, may motivate a person to insist on his rights; but those motivations should not be confused with the right. Otherwise, by regulation and other means, one can whittle away at dignity interests and change perceptions. Indeed, to substitute the right to exclude with an analysis of whether a person has a protected privacy interest leads to cases such as *Vernonia School District 47J v. Acton.*[99] In *Vernonia*, the Court readily deprecated the privacy interests of school children and permitted suspicionless urinalysis of student athletes by maintaining that student athletes had a lesser expectation of privacy due to such things as the configuration of locker rooms.[100] People have different needs for privacy. Those subjective and relativistic needs do not serve to define or defeat the right to be secure. As another example, in *Winston v. Lee*,[101] which concerned whether the government could compel a person to undergo the surgical removal of a bullet, the Court felt compelled to emphasize repeatedly that the "privacy" interest of the person in such circumstances encompassed dignity and bodily integrity.[102] The Court suggested that it was the individual's *right* to exclude the government from intruding into his body that was implicated; he may have been motivated to exercise that right out of a concern for bodily integrity, privacy, or dignity—or simply a desire to thwart the government's efforts to convict him—but none of those motivations limited or defined the right given to him under the Fourth Amendment.[103]

Three types of property—houses, papers and effects—are afforded Fourth Amendment protection. These types of property may be treated alike for present purposes. The right to exclude has long been considered an essential attribute of the ownership of private property.[104] This right has been most consistently recognized in the context of physical invasions of the home.[105] The right to be secure in that context has always been "the right to shut the door on officials of the state unless their entry is under proper authority of law."[106] This concept was the essence and purpose of *Olmstead's* trespass theory. *Katz* properly extended the right to exclude non-physical invasions of intangible objects. However, with its broad substitution of privacy for property, *Katz* undermined the theoretical basis for protecting the house, as such, from invasions. Yet, despite its lack of theoretical justification under *Katz*, the house has remained a core protected place, regardless of the presence of the owner. Justice Stevens–at least prior to *Kyllo*[107]–grasped the reason for this:

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[97] *Skinner*, 489 U.S. at 645-46 (Marshall, J., dissenting).

[98] *Id.* at 646 (Marshall, J., dissenting) (quoting Charles Fried, *Privacy*, 77 YALE L.J. 475, 487 (1968)).

[99] 515 U.S. 646 (1995).

[100] *Vernonia*, 515 U.S. at 657.

[101] 470 U.S. 753 (1985).

[102] *Winston*, 470 U.S. at 756-63.

[103] *Id.* at 767.

> The cases are legion holding that a citizen retains a protected possessory interest in his home and the effects within it which may not be infringed without a warrant even though that person is in custody. . . . Even when a person is in custody after an arrest based on probable cause, he still, of

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[104] *See, e.g.*, Dolan v. City of Tigard, 512 U.S. 374, 384 (1994) (stating that the right to exclude is "'one of the most essential sticks in the bundle of rights that are commonly characterized as property'") (quoting Kaiser Aetna v. United States, 444 U.S. 164, 176 (1979)); Yee v. Escondido, 503 U.S. 519, 528 (1992) (same); Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 435 (1982) ("The power to exclude has traditionally been considered one of the most treasured strands in an owner's bundle of property rights."); *Kaiser*, 444 U.S. at 179-80 (stating that the right to exclude is "universally held to be a fundamental element of the property right").

[105] *See, e.g.*, Alderman v. United States, 394 U.S. 165, 176-78 (1969) (stressing the Court's consistent protection of the home against physical invasions).

[106] Frank v. Maryland, 359 U.S. 360, 365 (1959).

[107] *Cf.* Kyllo v. United States, 533 U.S. 27, 41-43 (2001) (Stevens, J., dissenting) (rejecting the view that Kyllo had a protected interest because all the thermal imager did was collect heat measurements from exterior surfaces of the house and that the Fourth Amendment protected only the *inside* of the house).

> course, owns his house and his right to exclude others—including federal narcotics agents—remains inviolate.[108]

To illustrate, if one lives in a totally glass house, such that the authorities may observe all of its details from the outside, the owner does not have a reasonable expectation of privacy in the contents of the house or in the conduct of his activities in the house. Does this mean that the authorities may walk into the house any time they desire? Is there some unarticulated residual privacy interest remaining that prevents the police from entering upon a whim? If so, what is it? No one appears able to identify it. Yet, homeowners would surely be offended to learn that the police are therefore permitted to enter. If the protected interest is defined as the right to exclude, living in a glass house presents no problem; although the homeowner in such a house has given up, at least partially, the right to exclude—he has made no attempt to exclude the unaided eye—he has not given up the right to exclude a physical invasion. The reason the police cannot enter is because the owner has the right to exclude; he does not have to justify that right by reference to any other interest.[109] It is his right and he may exercise it when the police come to his door.

Similarly, as to personal effects, Justice Stevens again had it right when he commented on the government's placement of an electric monitoring device in a can of chemicals, with the consent of the seller, before delivery to the buyer. Justice Stevens believed that the buyer's rights were infringed when the delivery of the can occurred:

> The attachment of the beeper . . . constituted a "seizure." The owner of property . . . has a right to exclude from it all the world, including the Government, and a concomitant right to use it exclusively for his own purposes. When the Government attaches an electronic monitoring device to that property, it infringes that exclusionary right; in a fundamental sense it

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[108] Segura v. United States, 468 U.S. 796, 826 (1984) (Stevens, J., dissenting).

[109] *Cf.* Rawlings v. Kentucky, 448 U.S. 98, 112 (1980) (Blackmun, J., concurring) (stating that the "'right to exclude' often may be a principal determinant in the establishment of a legitimate Fourth Amendment interest").

> has converted the property to its own use. Surely such an invasion is an "interference" with possessory rights; the right to exclude, which attached as soon as the can respondents purchased was delivered, had been infringed. That interference is also "meaningful"; the character of the property is profoundly different when infected with an electronic bug than when it is entirely germ free.[110]

B.

The right to be secure must have a normative basis; otherwise, any definition will be subject to deprecation by interpretation favoring governmental needs. Along with a normative view, there must be an interpretation of the Amendment favorable to the promotion of individual rights—the "liberal" values expressed in *Boyd*. Otherwise, a majority of the Court may use any definition of the individual's protected interest, be it grounded in property, privacy or security, in a way inimical to individual rights. A proper understanding of the Framers' use of the term "secure" meets those requirements. Defining security as having the right to exclude has historical roots and meaning; the Framers lived in a time that equated security with the ability to exclude. It provides an easily identified and applied rule designed to protect an individual's right to be safe as to his or her person, house, papers and effects. It removes unworkable references to a person's motivations in seeking protection. It properly places on the government the burden to justify its actions.

Little interpretative skill needs to be utilized when the government physically invades. Even *Olmstead's* literalist approach guarded against such invasions. Similarly, little analysis is required when seizure of a person or property occurs. In each situation, the right to be secure has been patently invaded. A problem arises, however, when the government uses nonphysical investigative techniques to obtain information. Indeed, this problem perplexed the Court throughout the Twentieth

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[110] United States v. Karo, 468 U.S. 705, 729 (1984) (Stevens, J., concurring in part and dissenting in part) (footnotes omitted).

Century and, as *Kyllo* illustrates, continues to do so. In such situations, the admonition of *Boyd* must be understood and applied: "It is not the breaking of his doors, and the rummaging of his drawers, that constitutes the essence of the offence; but it is the invasion of his indefeasible right of personal security, personal liberty and private property" that violates the Fourth Amendment.[111] This is a call for a normative, liberal approach to interpreting the Amendment. Analyzing this passage, Morgan Cloud has insightfully written:

> The Court's conception of the relevant rights must be [the] starting point for understanding this critical passage. First, these rights were *indefeasible*. This is the language of strong fundamental rights—rights that trump social policies . . . . Indeed, these rights are so strong that the Constitution prohibits the most minimal transgressions against them, as well as the most severe. Second, these rights are indefeasible not only because the fundamental constitutional text defines them, but also because they are natural rights that are embodied in the Bill of Rights. Finally, these rights work in harmony, defining and amplifying one another. Personal security, liberty, and private property are not discrete interests; they unite to define significant attributes of individual freedom in the democracy.[112]

Cloud has captured the main justification for the normative liberal approach of *Boyd*: the importance of giving wide scope to Fourth Amendment protections due to their fundamental constitutional character.[113] One does not have to believe in natural rights theory as a prerequisite to a normative interpretation. Instead, one can find that normative basis in interpreting the Amendment as the Framers intended—that is, in their belief that persons have the fundamental right to be secure and in seeking to determine the values the Framers believed animated that right. Cloud comes close to the nature of the right involved when he asserts that security, liberty and property rights "are not discrete interests." However, these interests do not unite to define significant attributes of freedom. Instead, they stem from a common origin: the Framers' intent to give persons the right to exclude the government from interfering with those interests. The Fourth Amendment, at its most fundamental level, is designed to protect people from the government. It is no great leap to say that it should therefore be interpreted in a manner favorable to the enhancement of individual liberty.

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[111] Boyd v. United States, 116 U.S. 616, 630 (1885).

[112] Morgan Cloud, *The Fourth Amendment During the* Lochner *Era: Privacy, Property and Liberty in Constitutional Theory*, 48 STAN. L. REV. 555, 576 (1996).

[113] *See* T. Alexander Aleinikoff, *Constitutional Law in the Age of Balancing*, 96 YALE L.J. 943, 991 (1987) ("Constitutional law provides a set of peremptory norms—a checking power—that is basic to the American notion of a government of limited powers.").

A normative liberal approach is particularly necessary in today's world, where technology threatens to make all the details of one's life detectable. Modern surveillance techniques create great danger: "The insidious, far-reaching and indiscriminate nature of electronic surveillance—and, most important, its capacity to choke off free human discourse that is the hallmark of an open society—makes it almost, although not quite, as destructive of liberty as 'the kicked-in door.'"[114] Permitting the use of sensory enhancing devices encourages extraordinary efforts and technological innovation to defeat the ability to exclude the government. At what point does one voluntarily expose something: when the government can discover it by using binoculars; by looking over a fence; by looking from an airplane? Rather than making arbitrary decisions to differentiate among efforts made to keep secrets or among the effects of various technological devices, the inquiry must examine the essence of what the Amendment seeks to protect: the right to be secure—that is, the ability to exclude others from prying. Yet in today's society, technological and other advances preclude the ability to shield anything absolutely. To adequately protect and give recognition to the ability to exclude, normative values must be employed. Do the precautions taken by the person objectively evidence an intent to exclude the human senses? Does the particular surveillance technique utilized by the government defeat the individual's right to exclude? Would the "spirit motivating the framers" of the Amendment "abhor these new devices no less" than the "direct and obvious methods of oppression" that inspired the Fourth Amendment?[115] The answer to each of these questions may be an empirical inquiry at times, but is always a value judgment.

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[114] Amsterdam, *supra* note 2, at 388 (footnote omitted).

KYLLO V. UNITED STATES

In *Kyllo v. United States,*[116] the Court took a potentially significant step toward embracing a normative-based right to be secure as defining the protection afforded by the Fourth Amendment. But that decision is not without problematic language and it was issued by a closely–and an unusually split–Court. *Kyllo* has language from which proponents of all three of the potential candidates for defining what the Amendment protects–property, privacy or security–can draw for support to claim that their candidate is the proper measure of protection. However, much of *Kyllo's* analysis is more akin to that employed by the Court during its property rights era than to the privacy analysis that prevailed for the last third of the Twentieth Century. Indeed, language in *Kyllo* may have planted the seeds for the ultimate demise of the reasonable expectation of privacy test as the measure of Fourth Amendment protections. Much of that same language, which I call the good *Kyllo*, also broadly supports the security model as the proper measure of what the Amendment protects. Still, some of *Kyllo*'s language–the bad *Kyllo*–may serve to ultimately undermine the good *Kyllo*, resulting in a Fourth Amendment that does not protect citizens in their persons, houses, papers and effects from technological invasions. Thus, although *Kyllo* holds the promise of providing meaningful protection to the individual and workable rules that the police can follow, only time will tell whether that promise has been fulfilled.

Whether or not *Kyllo* ultimately turns out to be a major decision, the majority opinion certainly set lofty goals for the case. Writing for a bare majority of five, Justice Scalia viewed the Court's task in *Kyllo* expansively. Scalia asserted that the Court was confronted with the question of what limits there are upon the "power of technology to shrink the realm of guaranteed privacy."[117] The Court eschewed its oft-stated judicial restraint[118] and instead asserted that it "must take the long view."[119] It therefore opined: "While the technology used in the present case was relatively crude, the rule we adopt must take account of more sophisticated systems that are already in use or in development."[120]

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[115] Goldman v. United States, 316 U.S. 129, 139 (1942) (Murphy, J., dissenting).

[116] 533 U.S. 27 (2001).

Narrowly, the *Kyllo* Court was presented with the question whether the use of a thermal-imaging device aimed at a private home from a public street to detect relative amounts of heat within the home constituted a "search" within the meaning of the Fourth Amendment. The Court held that it did.

Kyllo involved the following facts.[121] A federal agent suspected that marijuana was being grown in Danny Kyllo's home. Federal agents used a thermal imager to scan Kyllo's home since high-intensity lamps are usually used to grow marijuana indoors. Thermal imagers detect infrared radiation—radiation that is emitted by most objects, but is not visible to the naked eye. Radiation is converted into images based on relative warmth so that "black is cool, white is hot, shades of gray connote relative differences."[122] Thus, a thermal imager reveals the relative heat of various rooms in the home, which the Court viewed as "information regarding the interior of the home."[123] Kyllo's home was scanned from streets in front and back of the home. The scan indicated that the garage roof and a wall were warmer than the rest of the home and neighboring homes. The agent concluded that Kyllo was using halide lights to grow marijuana in his house and, based on the thermal imaging and other information, obtained a warrant to search. In the subsequent search of Kyllo's home, federal agents found an indoor growing operation involving more than 100 marijuana plants.[124]

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[117] *Kyllo*, 533 U.S. at 39.

[118] *See, e.g.*, Silverman v. United States, 365 U.S. 505, 508-09 (1961) (rejecting the petitioner's urging that the Court consider recent and projected developments in the science of electronics and stating "[w]e need not here contemplate the Fourth Amendment implications of these and other frightening paraphernalia which the vaunted marvels of an electronic age may visit upon human society.").

[119] *Kyllo*, 533 U.S. at 40.

[120] *Id.* at 36. The Court noted:

> The ability to "see" through walls and other opaque barriers is a clear, and scientifically feasible, goal of law enforcement research and development. The National Law Enforcement and Corrections Technology Center, a program within the United States Department of Justice, features on its Internet Website projects that include a "Radar-Based Through-the-Wall Surveillance System," "Handheld Ultrasound Through the Wall Surveillance," and a "Radar Flashlight" that "will enable law enforcement officers to detect individuals through interior building walls." Some devices may emit low levels of radiation that travel "through-the-wall," but others, such as more sophisticated thermal imaging devices, are entirely passive, or "off- the-wall" as the dissent puts it.

Id. at 36, n.3 (citation omitted).

[121] *Id.* at 29.

The *Kyllo* majority opinion was authored by Justice Scalia, and his disdain for the reasonable expectation of privacy test and his affinity for anchoring Fourth Amendment analysis on the common law as it existed in 1791 is clearly evident. The Court, in referring to the reasonable expectation of privacy test, used language that puts into question that test's viability. Indeed, in reaching the result in *Kyllo*, the Court did so without reliance on that test. The Court characterized *Katz* as involving "eavesdropping by means of an electronic listening device placed on the outside of a telephone booth–a location not within the catalog ('persons, houses, papers, and effects') that the Fourth Amendment protects against unreasonable searches."[125] The Court observed that the "*Katz* test . . . has often been criticized as circular, and hence subjective and unpredictable."[126] Why would the Court, speaking through Justice Scalia, make these observations, which place in doubt the entire structure of reasonable expectation of privacy analysis that has prevailed since *Katz*, if that test were viewed as a viable and effective measure of Fourth Amendment rights?[127]

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[122] *Id.* ta 29-30.

[123] *Id.* at 35, n.2.

[124] *Id.*

[125] *Id.* at 32. In my view, the Court is wrong on this point. Katz was protected because he was within the catalog: he was a "person" and that object on the list includes both physical (the body) and non-touchable (the voice) interests. The government may pry, that is, search, by use of any of the senses. When a person takes steps to exclude the government from prying into any of those interests, such as closing a door of a telephone booth to engage in a conversation, he has a protected interest.

[126] *Id.* at 34.

The Court also acknowledged one fundamental Fourth Amendment principle–mere visual observation of the home is not a search[128]–but harkened back to property law analysis to justify that conclusion:

> The permissibility of ordinary visual surveillance of a home used to be clear because, well into the 20th century, our Fourth Amendment jurisprudence was tied to common-law trespass. Visual surveillance was unquestionably lawful because "'the eye cannot by the laws of England be guilty of a trespass.'" We have since decoupled violation of a person's Fourth Amendment rights from trespassory violation of his property, but the lawfulness of warrantless visual surveil-

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[127] *Cf.* Minnesota v. Carter, 525 U.S. 83, 97 (1998) (Scalia, J., concurring) (criticizing the use of the reasonable expectation of privacy test to determine when a "search" has occurred as having no "plausible foundation in the text of the Fourth Amendment" and rejecting view that the Amendment guaranteed "some generalized 'right of privacy,'" insisting instead that the text of the Amendment enumerates the objects to which privacy protection extends).

[128] *Kyllo*, 533 U.S. at 32. This was the main point of the dissent, which viewed the case as involving nothing more than plain view observations of the house:

> Whether that property is residential or commercial, the basic principle is the same: "'What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection.'" That is the principle implicated here . . . . All that the infrared camera did in this case was passively measure heat emitted from the exterior surfaces of petitioner's home; all that those measurements showed were relative differences in emission levels, vaguely indicating that some areas of the roof and outside walls were warmer than others. . . . Heat waves, like aromas that are generated in a kitchen, or in a laboratory or opium den, enter the public domain if and when they leave a building.
>
> Just as "the police cannot reasonably be expected to avert their eyes from evidence of criminal activity that could have been observed by any member of the public," so too public officials should not have to avert their senses or their equipment from detecting emissions in the public domain such as excessive heat, traces of smoke, suspicious odors, odorless gases, airborne particulates, or radioactive emissions, any of which could identify hazards to the community. In my judgment, monitoring such emissions with "sense-enhancing technology," and drawing useful conclusions from such monitoring, is an entirely reasonable public service.

Id. at 42-45 (Stevens, J., dissenting) (citations omitted).

> lance of a home has still been preserved.[129]

Kyllo also acknowledged that "the degree of privacy secured to citizens by the Fourth Amendment" has been affected by the advance of technology, listing as an example, "the technology enabling human flight[, which] has exposed to public view (and hence, we have said, to official observation) uncovered portions of the house and its curtilage that once were private."[130] The Court noted that *Kyllo* involved "more than naked-eye surveillance of a home" and asserted that it had "previously reserved judgment as to how much technological enhancement of ordinary perception from such a vantage point, if any, is too much."[131]

Rather than rely on *Katz*, the Court stressed the traditional importance of the home: "'At the very core' of the Fourth Amendment 'stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion.'"[132]

> While it may be difficult to refine *Katz* when the search of areas such as telephone booths, automobiles, or even the curtilage and uncovered portions of residences is at issue, in the case of the search of the interior of homes—the prototypical and hence most commonly litigated area of protected privacy—there is a ready criterion, with roots deep in the common law, of the minimal expectation of privacy that *exists,* and that is acknowledged to be *reasonable.* To withdraw protection of this minimum expectation would be to permit police technology to erode the privacy guaranteed by the Fourth Amendment. We think that obtaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained

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[129] *Id.* at 31-32 (citations omitted).

[130] *Id.* at 33-34.

[131] *Id.* at 33. The *Kyllo* majority distinguished the "enhanced aerial photography of an industrial complex" upheld in *Dow Chemical* on the ground that it did not involve "an area immediately adjacent to a private home, where privacy expectations are most heightened." *Id.* at 33.

[132] *Id.* at 31 (quoting *Silverman v. United States*, 365 U.S. 505, 511 (1961). The Court contrasted the home to "an industrial complex, which does not share the Fourth Amendment sanctity of the home." *Id.* at 37.

> without physical "intrusion into a constitutionally protected area" constitutes a search—at least where (as here) the technology in question is not in general public use. This assures preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted. On the basis of this criterion, the information obtained by the thermal imager in this case was the product of a search.[133]

The Court added that it must take the long view, from the original meaning of the Fourth Amendment forward and construe the Amendment in light of what was deemed an unreasonable search and seizure when it was adopted.[134] It accordingly held, "[w]here, as here, the Government uses a device that is not in general public use, to explore details of the home that would previously have been unknowable without physical intrusion, the surveillance is a 'search.'"[135]

The Court's language is remarkable for its reliance on themes developed by the Court when property analysis was the applicable test: the common law; constitutionally protected areas; analogy to physical intrusions; and reliance on what was protected at the time of the framing. This language has much more in common with *Olmstead* than *Katz*. Yet, the Court retained the essential lesson of *Katz*, which is not that the Fourth Amendment protects privacy, but that the interests protected by the Amendment include tangible and intangible interests and that the mode of invasion into those interests is not limited to physical intrusions.

The Court also used language supporting a security model for Fourth Amendment rights, grounded in language consistent with the meaning of the word "secure" that has prevailed since the time the Fourth Amendment was framed: the home is protected, the majority asserted, "because the entire area is *held safe* from prying government eyes."[136] Indeed, the scope of protection afforded by the *Kyllo* Court to the home is remarkable for its breadth and the Court's willingness to draw a firm and bright-line rule at the entrance of the house. As to what is learned, the Court asserted:

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[133] *Id.* at 34-35 (citations omitted).

[134] *Id.* at 40.

[135] *Id.* at 40.

[136] *Id.* at 37 (emphasis added).

> The Fourth Amendment's protection of the home has never been tied to measurement of the quality or quantity of information obtained. In *Silverman*, for example, we made clear that any physical invasion of the structure of the home, "by even a fraction of an inch," was too much, and there is certainly no exception to the warrant requirement for the officer who barely cracks open the front door and sees nothing but the nonintimate rug on the vestibule floor. In the home, our cases show, *all* details are intimate details . . . .[137]

Thus, in *Kyllo*, "how warm—or even how relatively warm—Kyllo was heating his residence"[138] was information about the interior of the home and was therefore protected.

As to types of devices utilized by the government to obtain information, the Court created a normative-based and bright-line rule centered on the importance of the home:

> But just as a thermal imager captures only heat emanating

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[137] *Id.* at 37 (citation omitted). The Court rejected any attempt to distinguish between types of information learned about the details of the home:

> Limiting the prohibition of thermal imaging to "intimate details" would not only be wrong in principle; it would be impractical in application, failing to provide "a workable accommodation between the needs of law enforcement and the interests protected by the Fourth Amendment." To begin with, there is no necessary connection between the sophistication of the surveillance equipment and the "intimacy" of the details that it observes—which means that one cannot say (and the police cannot be assured) that use of the relatively crude equipment at issue here will always be lawful. The [thermal imager] might disclose, for example, at what hour each night the lady of the house takes her daily sauna and bath—a detail that many would consider "intimate"; and a much more sophisticated system might detect nothing more intimate than the fact that someone left a closet light on. We could not, in other words, develop a rule approving only that through-the-wall surveillance which identifies objects no smaller than 36 by 36 inches, but would have to develop a jurisprudence specifying which home activities are "intimate" and which are not. And even when (if ever) that jurisprudence were fully developed, no police officer would be able to know *in advance* whether his through-the-wall surveillance picks up "intimate" details—and thus would be unable to know in advance whether it is constitutional.

Id. at 38-39 (citation omitted).

[138] *Id.* at 38.

> from a house, so also a powerful directional microphone picks up only sound emanating from a house—and a satellite capable of scanning from many miles away would pick up only visible light emanating from a house. We rejected such a mechanical interpretation of the Fourth Amendment in *Katz*, where the eavesdropping device picked up only sound waves that reached the exterior of the phone booth. Reversing that approach would leave the homeowner at the mercy of advancing technology—including imaging technology that could discern all human activity in the home.[139]

This rule is completely consistent with the security model of Fourth Amendment rights: the individual has the right to exclude the government from unreasonably searching or seizing any of objects identified by the Amendment as protected. After *Kyllo*, the individual does not have to give a reason for excluding the government beyond asserting that it is her house. The Court, in so analyzing the importance of protecting the home, thus establishes a broad protection against unjustified technological intrusions into that protected area. Indeed, the Court explicitly asserted that, in addition to thermal imaging, other technological intrusions, such as microphones that pick up sound, satellites that pick up visible light, "through-the-wall-radar," and "ultrasound technology [that] produces an 8-by-10 Kodak glossy" are also searches.[140] The logic of that analysis surely must apply to all technological devices that detect information about the interior of the home.

Kyllo correctly rejects drawing the line as to what constitutes a search based either on the sophistication of the surveillance equipment or on the "intimacy" of the details that are observed.[141] Instead, it draws the line by analogy to a physical invasion: "We think that obtaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without physical 'intrusion into a constitutionally protected area' constitutes a search . . . ."[142] The "focus," according to the Court, is "not upon intimacy but upon otherwise-imperceptibility."[143] Thus, if the police cannot discern the volume of sound of a conversation without being actually present, then a device that reveals that volume is a search.[144] Similarly, a device that measures the interior heat of the home is a search if it could only be otherwise detected by a person actually present in the house.[145] This analytical structure will require lower courts to make factual findings on what could or could not be ascertained by the senses absent the use of technology. If the information could not otherwise be obtained without physical intrusion, it is a search.

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[139] *Id.* at 35-36.

[140] *Id.* at 36.

[141] *Id.* at 37-38.

All, however, is not well with the Court's analysis. The bad *Kyllo* left open a potentially fatal flaw in the protection of the home against the advance of technology by limiting its holding to technology not in general public use.[146] The Court saw this limitation as stemming from its prior precedent in *Ciraolo*, which had established that the police overflight of the curtilage of the house–an area considered part of the house for the purpose of the Fourth Amendment–to observe a marijuana patch growing there was not a search within the meaning of the Fourth Amendment.[147] The *Ciraolo* Court, premising its decision on the reasonable expectation of privacy test, stated "[i]n an age where private and commercial flight in the public airways is routine, it is unreasonable for respondent to expect that his marijuana plants were constitutionally protected from being observed with the naked eye from an altitude of 1,000 feet."[148] The *Kyllo* majority declined to reexamine that factor because it was "quite confident[]" that thermal imaging was not routine.[149]

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[142] *Id.* at 34.

[143] *Id.* at 38, n.5.

[144] *Id.* at 39.

[145] *Id.*

[146] *Id.* at 39-40, n.6.

[147] *Id.*

[148] California v. Ciraolo, 476 U.S. 207, 215 (1986). *See also* Dow Chem. Co. v. United States, 476 U.S. 227, 238 (1986) (observing that the question whether the use of "highly sophisticated surveillance equipment not generally available to the public, such as satellite technology"could be proscribed absent a warrant was not before the Court).

The *Kyllo* majority set forth no criteria to determine when a device is in general public use.[150] More important than the uncertainty in ascertaining when something is in general public use, however, is the danger that such a limitation on the scope of the home's protection becomes embedded in Fourth Amendment analysis.[151] If it does, the good *Kyllo's* promise of protection for the home is illusory. Given the pace of technological change, what is an exotic technology one day becomes routine the next. If general public use serves to limit the scope of the home's protection, it also serves to defeat that protection.[152]

Will the good *Kyllo* or the bad *Kyllo* prevail? Certainly, the strength of the Court's language regarding the *per se* nature of the protection of information concerning the interior of the home bodes well for the good prevailing. The language "*all* details are intimate details" establishes an uncompromising rule. Thus, any technology that detects any detail of the interior of the home that would be otherwise imperceptible is a search and the police will know in advance that it is a search. The Court's view that it must take the long view and seek to prevent the infringement upon privacy that technology can create is also encouraging as a sign that the good *Kyllo* will endure.

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[149] *Kyllo*, 533 U.S. at 39-40, n.6.

[150] Justice Stevens, dissenting, criticized the majority's view on that ground:

> [T]he contours of [the majority's] new rule are uncertain because its protection apparently dissipates as soon as the relevant technology is "in general public use." Yet how much use is general public use is not even hinted at by the Court's opinion . . . . this criterion is somewhat perverse because it seems likely that the threat to privacy will grow, rather than recede, as the use of intrusive equipment becomes more readily available.

Id. at 47 (Stevens, J., dissenting) (citation omitted).

[151] *See* Christopher Slobogin, *Peeping Techno-Toms and the Fourth Amendment: Seeing Through* Kyllo's *Rules Governing Technological Surveillance*, 86 MINN. L. REV. (forthcoming 2002) (demonstrating that the "general public use and the naked eye doctrines are virtually impossible to apply in a meaningful manner").

[152] *See* Christopher Slobogin, *Technologically-Assisted Physical Surveillance: The American Bar Association's Tentative Draft Standards*, 10 HARV. J. LAW & TECH. 383, 400 (1997) (rejecting the "general public use" standard because "so many intrusive devices . . . are readily 'available' to the public").

However, the *Kyllo* majority was narrow and the highly unusual lineup of the Justices in the majority and the dissent leaves significant doubt that the good *Kyllo* will remain viable. Adding to the uncertainty is the majority's refusal–even though it was professing to take the long view–to address the gaping hole in its protection for the home, that is, the use of technology that is in general public use. Unless the Court ultimately rejects that limitation on the scope of the Fourth Amendment's protection, the general public use principle will eviscerate the good *Kyllo*.

The logic of *Kyllo's* analysis, it seems clear to me, should be extended to all of the objects protected by the Amendment–houses, people, papers, and effects. A search, following *Kyllo*, is when the police have learned something about the object that would otherwise have been imperceptible absent the use of the technological device. This would signal a return to a more literal and common-sense definition of a search.[153] Any such intrusion must be justified as reasonable.[154]

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[153] *Cf.* Arizona v. Hicks, 480 U.S. 321, 325 (1987) (moving stereo system a few inches to observe serial numbers is a search: "A search is a search, even if it happens to disclose nothing but the bottom of a turntable.").

[154] *See Kyllo*, 533 U.S. at 48 (Stevens, J, dissenting) ("Clearly, a rule that is designed to protect individuals from the overly intrusive use of sense-enhancing equipment should not be limited to a home."). Thus, cases such as *United States v. Place*, 462 U.S. 696, 707 (1983) must be reconsidered. *Place,* which established that a trained dog's sniffing of luggage to detain the presence of controlled drugs inside, was wrongly decided and *Kyllo* demonstrates why: an effect (as is a home) is on the list of protected items and any intrusion to ascertain the contents of a closed container (as with the details of the interior of the home), whether by the instrumentality of a highly trained dog's nose or by technological devices, is a search if it detects that which would otherwise not be perceptible. As a search, it must be justified as reasonable. It does not matter that the only information that can be learned by use of the instrumentality is that the person is engaged in criminal activity. *But see Kyllo*, 533 U.S. at 47-48 (Stevens, J, dissenting) (arguing that because "a dog sniff that 'discloses only the presence or absence of narcotics does not constitute a "search" within the meaning of the Fourth Amendment,' . . . it must follow that sense-enhancing equipment that identifies nothing but illegal activity is not a search either"). The result of this analysis would similarly establish, for example, that hand-held devices that use gas chromatography and mass spectrometry to sample air, earth, or water to detect if the home is being used as a drug lab are also searches. *See* Peter Joseph Bober, *The "Chemical Signature" of the Fourth Amendment: Gas Chromatography/Mass Spectrometry and the War on Drugs*, 8 SETON HALL CONST. L.J. 75 (1997).

Applying *Kyllo's* "otherwise-imperceptibility" test would seem to invalidate the use of existing technological devices, such as airplane overflights and the use of binoculars and flashlights,[155] if they disclose that which would otherwise be imperceptible. After all, the whole point of using such items is to observe what otherwise could not be seen. The bad *Kyllo* has a ready answer: these devices are in general public use and, therefore, do not constitute searches. However, even if the good *Kyllo* prevails, some compromise based on existing technology seems likely, despite its inconsistency with some of *Kyllo's* broader assertions. The analytical structure of that accommodation may be no more satisfactory than the acknowledgment that such devices have been previously sanctioned. As to airplane overflights, so long as they merely provide an observation platform to look down into the curtilage or into the exterior portions of an industrial complex, those observations, arguably, are attendant circumstances of modern life and fit with only relative discomfort into the visual surveillance doctrine. Indeed, *Kyllo* itself listed observation from airplanes as acceptable. Similarly, binoculars used merely to magnify sight or flashlights to illuminate dark spaces are, in general, consistent with that view. Under the circumstances, the individual who exposes something to observation from the air or fails to draw his blinds to exclude sight has relinquished his security guarantee by not excluding the prying eye.[156]

If such devices are permitted, the obvious question arises as to how sophisticated they can be–and how intrusive in their ability to obtain information–before the Court concludes that their use becomes a search. Once the bright-line rule of the good *Kyllo* is found inapplicable, the "general public use" criterion clearly affords no protection, leaving the Court with the options of either freezing the development of such devices in some *ad hoc* manner[157] or permitting unlimited use of very intrusive devices as they become readily available. Neither of these results is satisfactory.

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[155] *See* Texas v. Brown, 460 U.S. 730, 740 (1983) (quoting *U.S. v. Lee*, 274 U.S. 559, 563 (1927), "The use of a searchlight is comparable to the use of a marine glass or field glass. It is not prohibited by the Constitution.").

[156] *See, e.g.*, People v. Ferguson, 365 N.E.2d 77 (Ill. App. 1977) (use of binoculars to look through window not a search when window curtains open).

[157] *See generally* 1 WAYNE R. LAFAVE, SEARCH AND SEIZURE § 2.2(c) (3d Ed.

There may be another option. The *Kyllo* majority intimated that the correct analysis of such observations is to conclude that they are searches but that they are not unreasonable to the extent that the "portion of a house that is in plain public view"[158] is observed. This is to say that the use of technology to enhance sight or the other senses should implicate the protections of the Amendment. This analysis properly places the emphasis on the question where it should be: whether the search is reasonable. Under such circumstances, there would be the recognition that those devices that detect that which is otherwise imperceptible are searches, forcing the Court to confront the reasonableness of such searches. That shift would put pressure on the Court to revamp its inconsistent jurisprudence relating to the concept of "reasonableness," including when a warrant is required and what criteria, if any, there should be to measure the reasonableness of a search.

CONCLUSION

There are "few issues more important to a society than the amount of power it permits its police to use without effective control."[159] Only by understanding what is protected by the Fourth Amendment can one know what the government may do without implicating it. Shortly after the *Katz* decision, one commentator wrote that the Fourth Amendment's

> operative function is exclusionary: it works negatively to keep

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1996) (analyzing the use of binoculars, telescopes, and photo enlargement equipment and observing, *id.* at 425, "that there certainly comes a point, because of the sophistication of the photographic equipment and what it is able to accomplish over naked-eye observation, that photo enhancement becomes a search.").

[158] *Kyllo*, 533 U.S. at 32. My view is stated at Clancy, *supra* note 3, at 340-41.

[159] Amsterdam, *supra* note 2, at 377; *cf.* Brinegar v. United States, 338 U.S. 160, 180 (1949) (Jackson, J., dissenting) ("Uncontrolled search and seizure is one of the first and most effective weapons in the arsenal of every arbitrary government."); Harris v. United States, 331 U.S. 145, 161 (1947) (Frankfurter, J., dissenting) (stating that "the protection afforded by the Fourth Amendment against search and seizure by the police . . . is not an outworn bit of Eighteenth Century romantic rationalism but an indispensable need for a democratic society").

> out the unwelcome agencies of government. It follows logically, however, that where something is to be kept out, that from which it is barred deserves recognition in a positive sense. It is for this reason that the fourth amendment should be looked upon as safeguarding an affirmative right of privacy.[160]

Within this syllogism is the flaw that has plagued courts and commentators. The Fourth Amendment does act negatively, to exclude. But that is also the essence of the right to be secure. To look beyond the right to exclude and seek positive attributes to the right to be secure, whether those attributes be called privacy or something else, serves to limit—and ultimately defeat—that right. Indeed, those attributes are mere motivations for exercising the right; they do not define it. The exclusionary function of the Amendment is so bound up with the right to be secure as to be equivalent to it: There is no security if one cannot exclude the government from intruding.

Therefore, the ability and the right to exclude agents of the government is the essence of the security afforded by the Fourth Amendment. The commands of the Amendment are, after all, "practical and not abstract."[161] As to a person's house, it is "the right to shut the door on officials of the state unless their entry is under proper authority of law."[162] This was the core understanding expressed in the physical trespass theory of *Olmstead* and is also strongly evident in *Kyllo*. Of course, *Olmstead* read the right too literally. The ability to exclude must extend to all invasions, tangible and intangible, and must protect both tangible and intangible aspects of the Amendment's protected objects. That was the essential lesson of *Katz*; *Kyllo* appears to accept that lesson. *Katz*'s progeny and privacy theory, however, failed to grasp the essence of the interest protected. Although it may have been Katz's *expectation* that his conversation was not being heard, it was his *right* to exclude others from hearing.[163] Privacy may motivate a person to assert his or her right but it is the right to prevent intrusions—to exclude—which affords a person security. *Kyllo* recognized this when it asserted that the entire home "is held safe from prying government eyes."

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[160] Note, *From Private Places to Personal Privacy: A Post-*Katz *Study of Fourth Amendment Protection*, 43 N.Y.U. L. REV. 968, 968 (1968) (footnote omitted).

[161] United States v. Ventresca, 380 U.S. 102, 108 (1965).

[162] Frank v. Maryland, 359 U.S. 360, 365 (1959).

[163] *Cf.* Amsterdam, *supra* note 2, at 385 ("Mr. Katz's conversation in a pay

If one extends the good *Kyllo*'s vision to all of the objects protected by the Amendment, with the understanding that those objects include both tangible and intangible qualities that can be the subject of either physical or non-physical invasions, the proper scope of its protections is understood. The proper question is whether the papers or personal property are mine, whether the house is mine, whether the body is mine? If the answer is yes, then one has the right to exclude the government from searching or seizing. *Kyllo* does not answer this question but the logic of its analysis–at least for the good *Kyllo*–indicates that the answer should be yes.

The right to exclude, of course, is not absolute; the government can overcome the assertion of that right if it establishes that its actions are reasonable. But the burden is on the government to justify its actions. This returns the structure of Fourth Amendment analysis to comport with the intent of the Framers: The people have the right to be secure in their persons, houses, papers and effects against unreasonable searches and seizures. By affording citizens the ability to exclude, their security is assured. That right to be secure is clear and pristine—it is the right to exclude the government.

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telephone booth was protected because he 'justifiably relied' upon its being protected—relied, not in the sense of an expectation, but in the sense of a claim of right.") (footnote omitted).

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